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The Illinois Medical Journal

August, 1943

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Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE PREPARATION OF FOOD

Nutrition is the sum total of those processes by which the living organism receives and utilizes the materials necessary for the maintenance of life.[1] A foodstuff is a material which is capable of being added to the body substance or which when absorbed into the blood stream, will prevent or reduce the wasting of a necessary constituent of the organism.[2] In the human family these essential substances are water, inorganic salts, organic foodstuffs and those substances which are now termed vitamins.

Prior to the present world war the American people were not restrained in any sense of the word to the types and amount of food they could procure in the various markets. Meat was not restricted and the meat lover could buy to his heart's content. The only limitation to his purchases was the state of his pocketbook. The producer could use whatever part of his many products he desired, and could dispose of his surplus as he saw fit. Food faddists rarely had any trouble buying the type and quantity of food they desired, and those in low income groups were usually able to buy lower priced products at their favorite markets.

Today, more than ever before in the history of our country, everyone regardless of age, physical or economic condition, is limited under the nation-wide rationing programs. Consequently it is highly essential today that the American people learn more concerning not only the essentials of a well balanced diet, but also the methods by which food may be preserved and prepared for use with the utilization of some of the newer methods of preserving.

More care should be taken in the preparation and cooking of certain types of fruits and vegetables to retain to the greatest extent possible the vitaminic and other nutritive elements therein contained. It has been known for a long time that the outer jackets of many vegetables, as well as the skins of many fruits are high in nutritive value. Cooking vegetables without removing some of these structures protects the vitamin content. This is true with the potato where the skins are not only high in nutritive elements, but also protect other essential food elements as well as retain the flavor to the best advantage.

Careful attention should be given to the preparation of fruits to retain the fullest nutritional value. It is a well known fact that straining such fruits as those in the citrus group and discarding the pulp, loses much of the food value. It is probably true that the average individual eats more food than is actually required by the body, and with more consideration to the caloric value of food and a fairly accurate determination of the calories needed, it is possible to "spare the points" under the rationing system.

Housewives are urged to increase their home canning and much information is given from

1. McLester, J. S., "Nutrition nnd Diet in Health & Disease" 1943.
2. Lusk, Graham.

various departments in Washington, as well as by home economic services available in most communities today. A considerable amount of attention is being paid likewise to the modern methods of dehydration of food, to preserve it more satisfactorily with less bulk and requiring only the replacement of the fluid loss when it is being prepared. Dehydration must be carefully and skillfully done, and perhaps with more experience, there will be a minimum loss of vitaminic content. However, it is stated that vitamin A is lost through dehydration unless the vegetable is heated rapidly before dehydration is done, or if it is dehydrated in the absence of oxygen. This, it is stated, inactivates a destructive enzyme.

When properly done by an experienced worker, the freezing of fruits and vegetables and keeping them frozen, retains most of the nutritive elements. Frozen beef, fish, fowls and game have been kept over long periods of time in modern freezing units. These are, or have been until the war came to America, available for even home use. In many cities and towns cooperative locker services, or others for rental, have been generally available. Warnings have been issued however that food so frozen should not be permitted to thaw then be refrozen, as this will affect the nutritive value and there is liable to be a definite loss of essential food elements if this is permitted.

The rather general use of pressure cookers has likewise taught the modern housewife much along the line of cooking fruits and vegetables, as well as some meats, to retain the highest nutritive value.

There are many documents relative to the preparation and preservation of foods which are available from Washington. They may be procured by anyone by writing the Superintendent of Documents, Washington, D. C., and will be sent for a small sum, usually either five or ten cents, to barely cover the cost of publishing and delivery of the bulletin.

Although much information has been available on the subject of nutrition and the preparation

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of foods for many years, it has been only recently that there has been a general demand for complete information by many housewives and others who desire, as part of their contribution to the war effort, to conserve foods to make more available for war and other essential purposes. It is quite likely that through paying more attention to the actual requirements of the human body, and regulating the average diet to the law of supply and demand, with more consideration for availability of foods, we will become a healthier nation.

More consideration to the nutritional elements contained in present day available foods will add much to the health of people in general. Tables are accessible to all, which give not only the caloric value of the many types of food, but also in a general way, their vitaminic content. It is generally believed today that the average individual in health who eats a well balanced diet does not need additional concentrated vitamin products. Many elaborate claims are being made through the press, the mail and over the air for certain vitamin tablets or pills, and giving the general impression that to maintain health and receive maximum assurance that the individual will not have colds and other frequently seen disorders, all they need to do is to take one or more vitamin pills daily, giving them to all members of the family, and they may be reasonably secure.

That there are occasional cases of avitaminoses no one denies, yet it seems absurd for one to believe they must take a certain remedy or be in greater danger than others of having various ailments. With ever increasing demands on the part of many people today for information on food, its caloric value and vitaminic content, and also for methods of preparing and preserving foods safely for future use, it seems quite probable that the average individual will learn that the majority of disturbance due to lack of essential vitamins may be alleviated through an increase in certain food elements which have been deficient in the past.

The last word on this subject has not yet been said, and with the thousands of research workers constantly endeavoring to bring more light on the subject of nutrition and diet, as well as the role of diet in many deficiency diseases, it seems quite probable that after all, as has been the case following all other wars, some good will come from the present conflict which will add materially to the health of the nation, and be at least partly responsible for further improvements in mortality and morbidity statistics.

THE PREVALENCE OF ACCIDENTS

An interesting article was recently published in the Statistical Bulletin published by the Metropolitan Life Insurance Company (June, 1943) entitled "Accidents kill more workers off the job than on the job. According to the article, at least three workers are killed in "off the job" accidents for every two that are fatally injured while on the job.

With the present consideration being given to manpower, and the apparent shortage in this as well as all other countries which are at war, it is highly important that more attention than ever before be given to the prevention of accidents. Much thought has been given to the care of workers and every effort is being made to minimize accidents through educational campaigns, installation of safety devices and in many other ways, as well as having within most plants, a well organized medical corps with physicians on duty constantly.

Yet with accidents still quite prevalent among workers while off the job, there has been but little organized effort to minimize these casualties. We are informed that the ratio of workers killed off the job to those killed in industrial service is more than three to two. Even though speed has been reduced on the highways the automobile still accounts for many of these deaths, along with cases of drowning, shooting, electrocutions, machinery, and many other types of accidents.

In the report it was stated that machinist had five times as many mishaps off the job than while on duty; farmers and farm laborers 3½ times as many and mechanics, carpenters, steel and iron workers had twice as many accidents. Electricians and welders likewise had more accidents off the job than while doing their regular work, and theirs are generally considered to be more than the usual hazardous occupations.

With the present day efforts to minimize occupational accidents as an aid in the conservation of manpower it seems most desirable that

efforts be made likewise in the interest of the war effort, to stimulate the interests of workers in matters of personal, off the job, safety. These accidents are also a serious menace to the workers and their families as they are not ordinarily compensable as are the casualties while on the job. From available statistics, and when one considers the fact that many workers are accepted today for employment in factories who have been rejected for service, many who are aged as well as the unusually young, it is most creditable to the American effort to find a surprisingly low industrial casualty rate, and with additional educational campaigns to promote off the job safety, and the assumption of greater care on the part of the individuals, these casualties should likewise be materially reduced.

NEW POSTAL REGULATION

A new postal regulation was announced recently in which the addition of local postal zones to the addresses of individuals in some 178 large cities of the country should be made. It is stated that under this provision when the postal zone is added to the regular mailing address, the number of hours consumed in post offices in sorting and routing outgoing mail will be greatly reduced. Likewise it is thought that this procedure will expedite the delivery of mail.

As we understand it, the plan right now is not compulsory but it is likely that it will become so in the future. It will lessen the burden of the overworked postal employees materially, as they too are shorthanded at the present time. In larger cities under this new procedure mail will go directly to the proper substation for delivery by letter carrier.

Eventually mailing lists of periodicals will be revised and will contain the proper zone number for subscribers in the cities where the zoning procedure is necessary. In view of the fact that at present many publications such as the Illinois Medical Journal do not have the proper zoning information, we will greatly appreciate it if all subscribers will notify us at their earliest convenience of the zone which should be included on their correct address.

According to information just received by the editor, the following Illinois cities are on the list for which the new postal unit numbering method is required: Chicago, Peoria, Rockford, Bloomington and Decatur. It is possible that other cities in Illinois will be added in the near future. It will be a great help if physicians in these cities of Illinois (and of course those receiving this Journal in other states where the new regulation applies) will send to the Managing Editor, Illinois Medical Journal, 30 North Michigan Avenue, Chicago, the proper unit number to be added to their address.

INFECTIOUS ECZEMATOID DERMATITIS

This condition, often secondary to some infected wound on the lower extremities, is one that occurs quite frequently in those employed in the building industries. I find that, almost uniformly, the application of any salve (including the current favorite, sulfathiazole) tends to make the condition worse. In fact, I believe that it seals up the exudate, always present, and "forces" the absorption of bacteria and their products into the blood stream, with the production of new lesions at sites far removed from the injury. Patients often remark, "I put a salve on the sore, and it spread all over." Only the relatively innocuous nature of the invading organisms saves the patient from a speedy demise.

Application of wet dressings of potassium permanganate (1-3,000) and the use of the same medicament in a bath (1-30,000) is a very efficient measure. It seems to me that the skin returns to normal more quickly after the use of potassium permanganate than after using other remedies which may be more bactericidal (aluminum subacetate, mercuric chloride). I agree with the current dermatologic opinion that there is little to be gained by administration of the sulfonamide drugs in nonfebrile conditions; that more harm than good may come of it. — Thomas S. Saunders, M.D., Portland, Ore., Northwest Med., Vol. 42, No. 5, May, 1943.

Here's a thought for the day, culled from *Insect Invaders,* by Anthony Standen. If Mr. and Mrs. House Fly get married in April, by August they may look forward to 191,010,000,000,000,000,000 descendants. — *Book-of-the-Month Club News.*

Correspondence

FOUR MORE DISEASES MADE REPORTABLE IN ILLINOIS

ROLAND R. CROSS, M. D.
DIRECTOR, ILLINOIS DEPT. OF PUBLIC HEALTH

Amending the "MANUAL AND OUTLINE OF PROCEDURE FOR HEALTH OFFICERS FOR THE CONTROL OF COMMUNICABLE DISEASES, Revised and in Force Throughout Illinois, October 1, 1941," as follows:

Page 33: Amending the list of Notifiable Diseases to include "Hepatitis, Infectious (Acute Catarrhal Jaundice)" to be inserted following "No. 21, Hemolytic Streptococcus Sore Throat."

"Jaundice, Hemorrhagic (Spirochetosis Icterohemorrhagic, Weil's Disease)" and "Kerato-Conjunctivitis, Infectious (Superficial Punctate Keratitis: Nummular Keratitis)" are to be inserted following "No. 23, Influenza."

"Rheumatic Fever, Acute" is to be inserted following "No. 40, Rabies."

Page 72: Following "Hemolytic Streptococcus Sore Throat", the following rules and regulations for the control of "Hepatitis, Infectious (Acute Catarrhal Jaundice)", "Jaundice, Hemorrhagic (Spirochetosis Icterohemorrhagic, Weil's Disease)", and "Kerato-Conjunctivitis, Infectious, (Superficial Punctate Keratitis: Nummular Keratitis)" are to be inserted:

"HEPATITIS, INFECTIOUS (ACUTE CATARRHAL JAUNDICE)

"1. *Recognition of the disease.* — An acute infection characterized by a prodromal period of from less than a day to about a week, following which jaundice of more or less severity occurs. The prodromal symptoms include headache, abdominal pain, malaise, anorexia, nausea, and vomiting. Fever is usually present although it may be so slight as to be missed. Toward the end o fthis period, bile may be detected in the urine, and jaundice of minimal to marked intensity is soon noted, persisting for days or weeks. A leukopenia with relative lymphocytosis may be present. Convalescence is of variable length. There is considerable variation in the degree of severity of the disease, ranging from anicteric cases to cases of acute yellow atrophy of the liver. A similar clinical picture has been observed following certain industrial intoxications, antisyphilitic treatment, and several immunization procedures, but the relation of these clinical conditions to infectious hepatitis has not been determined.

"2. *Etiological agent.* — Unknown

"3. *Source of infection.* — Probably discharges from the nose and mouth of infected individuals. There may be carriers.

"4. *Mode of transmission.* — Presumably through direct contact with infected persons and carriers of the disease. Alimentary infection may be a factor but the evidence in this direction is scanty.

"5. *Incubation period.* — Usually from 21 to 35 days.

"6. *Period of communicability.* — Relatively short. About 1 week and apparently not more than 2 weeks.

"7. *Susceptibility and immunity.* — Most common among children. Cases have been observed among individuals of all age groups. The disease is, in most instances, of longer duration and greater severity among adults than among children. Second attacks have been rare, relapses uncommon.

"8. *Prevalence.* — Epidemics are most commonly reported from rural areas and from institutions. Most outbreaks begin during the fall and winter months.

"9. *Methods of control*:

A. The infected individuals, contacts, and environment.

1. Recognition of the disease and reporting: By clinical symptoms.

2. Isolation: During the first week of illness.

3. Concurrent disinfection: Discharges of nose and throat of patient.

4. Terminal disinfection: None

5. Quarantine: None

6. Immunization: None

7. Investigation of source of infection. Desirable to detect and isolate other cases.

B. General measures:

Physicians of the vicinity should be informed when this disease is prevalent.

"JAUNDICE, HEMORRHAGIC

(Spirochetosis Icterohemorrhagic, Weil's Disease)

"1. *Recognition of the disease.* — An acute infection characterized by malaise, prostration, gastrointestinal symptoms, muscular pains, and fever at the onset, followed by defervescence, jaundice, and signs of nitrogen retention, of varying degree and duration. Relapses may occur. Severe cases develop hemorrhages at various sites and renal damage may be marked. About 50 percent of cases are without jaundice. Isolation of *Leptospira icterohaemorrhagiae* or *L. canicola* by inoculation of guinea pigs with the blood early in the course of the disease, or with the urine later, definitely identifies the condition. Positive serological tests strongly indicate the Presence of Weil's Disease.

"2. *Etiological Agent.* — *Leptospira icterohaemorrhagiae* found in the blood or urine of patients and in the renal tract of rats. *L. canicola* primarily a spirochete of dogs, is found in some human cases.

"3. *Source of Infection.* — Urine of rats and dogs. Contaminated water and food stuffs are important. Foxes, sheep, cats, and mice are at times involved.

"4. *Mode of transmission.* — It appears that ingestion of contaminated food and water plays a role and that continued exposure of abraded or unabraded skin to alkaline waters containing the *Leptospirae* may lead to infection. Sewer workers, fish workers, coal miners, and veterinarians are especially exposed to infection.

"5. *Incubation period.* — Four to 19 days, average 9 to 10 days.

"6. *Period of communicability.* — The urine of patients continues to contain organisms for weeks or months following convalescence. Only one human case has been traced to direct contact. Ten to 50 percent of wild rats harbor *Leptospirae* in their kidneys. They are persistent carriers.

"7. *Susceptibility and immunity.* — Susceptibility is general. Natural immunity does not exist and artificial undemnity is still questionable. A refractory state develops following recovery, and immune bodies may be detected for a considerable period thereafter.

"8. *Prevalence.* — The disease is present in rats over the entire world. Dogs are also infected to a considerable degree. Man develops the disease when conditions are such as to allow unusually close contact between man and rats or dogs. Sporadic human cases have been reported from widely distributed cities in the United States.

"9. *Methods of control*:

A. The infected individual, contacts, and environment:

1. Recognition of the disease and reporting: Characteristic clinical symptoms, isolation of the organism from the blood or urine, and positive serological tests.

2. Isolation: None

3. Concurrent disinfection: Urine and other discharges of patient.

4. Terminal disinfection: None

5. Quarantine: None

6. Immunization: None practical

7. Investigation of source of infection: Search for rats or dogs harboring the *Leptospirae* and for source of food or water to which such animals have access, e.g., communal baths, fish-cleaning establishments, mines, sewers, etc.

B. General measures:

1. Rat control by ratproofing, trapping, and poisonings.

2. Sanitary disposal of human wastes in civil and military environment.

3. Destruction of Leptospirae in nature by drainage of mines and soil, and disinfection of water in fish-cleaning establishments with 1:60 hypochlorite solution.

4. Education in the value of proper disposal of water, storing and keeping foods, and other general sanitary measures.

5. Protection of workers exposed to infection by preventing organisms from entering through the skin and mouth by the use of boots, gloves, avoidance of skin abrasions, etc.

"KERATO-CONJUNCTIVITIS, INFECTIOUS

(Superficial Punctate Keratitis: Nummular Keratitis)

"1. *Recognition of the disease.* — Acute onset usually with sensation as of foreign body under the upper lid. Edema of lids, scleral injection, follicular hypertrophy of palpebral conjunctiva, enlargement and tenderness of pre-auricular lymph node with a watery discharge, followed in few or many of the cases by multiple pin-point corneal opacities. Involvement usually unilateral.

"2. *Etiological agent.* — Considered to be a specific filterable virus.

"3. *Source of infection.* — Probably the discharge from the eye of an infected person or a carrier.

"4. *Mode of transmission.* — Apparently contact with an infected person or carrier or with articles freshly soiled with discharges of such person.

"5. *Incubation period.* — Not definitely established but probably about 5 days.

"6. *Period of communicability.* — Unknown but certainly during acute state of the disease.

"7. *Susceptibility and immunity.* — Susceptibility variable. No age, sex, or race known to be immune.

"8. *Prevalence.* — Occurs in epidemic form in warm climates, also among industrial employees in temperate climates, involving a small percentage of the individuals in the groups affected.

"9. *Methods of control:*

A. The infected individual contacts and environment:

1. Recognition of the disease: Clinical course confirmed by smears of conjunctival scrapings showing mononuclear cells and none of the usual

etiologic agents of other forms of conjunctivitis.

2. Isolation: None, provided hygienic measures are taken by the infected person.

3. Concurrent disinfection: Disinfection or destruction of conjunctival and nasal discharges and articles soiled therewith.

4. Terminal disinfection: None.

5. Quarantine: None.

6. Immunization: None.

7. Investigation of source of infection: To locate other cases and institute precautions at home or working place.

B. General measures:

1. Education as to personal cleanliness and as to danger of use of common towels and toilet articles.

2. Avoidance of contact of hands with conjunctival or nasal discharges."

Page 105: Rule 2, under "Control of Contacts to Carriers," is to be deleted entirely, and the following paragraph is to be substituted.

"A person living on premises with a typhoid carrier, who has been granted modified quarantine, shall not be permitted to handle food unless he has received a standard course of injections against typhoid and para-typhoid, which consists of three doses of typhoid and para-typhoid vaccine, ½ c.c., 1 c.c., and 1 c.c. Annually, thereafter, he shall receive a dose of ½ c.c., of triple typhoid vaccine subcutaneously, so as to bring up his immunity to a protective level. Before being permitted to return to his occupation, he shall submit four successive, negative specimens of feces and urine not earlier than 48 hours apart — specimens to be collected from second and third bowel movements after a cathartic has been given. No negative reports will be considered if specimen has been in transit more than 24 hours."

STATE OF ILLINOIS)
) SS
COUNTY OF SANGAMON)

I, Roland R. Cross, M.D., Director of the Department of Public Health, State of Illinois, do hereby certify that the foregoing rules as amending the "MANUAL AND OUTLINE OF PROCEDURE FOR HEALTH OFFICERS FOR THE CONTROL OF COMMUNICABLE DISEASES, Revised and in force on and after October 1, 1941, throughout Illinois," as herein set forth, are true and correct copy of rules promulgated by the Department of Public Health effective on and after the 15th day of May, 1943.

IN WITNESS WHEREOF, I hereunto set my hand and Official Seal of the Department of Public Health of the State of Illinois, this 15th day of May, 1943.

(signed) Roland R. Cross
_____ M.D.
DIRECTOR OF PUBLIC HEALTH

NURSING DIVISION

The Nursing Supply and Distribution Unit of the War Manpower Commission has been made the Nursing Division of the Commission's Procurement and Assignment Service, Paul V. McNutt, Chairman of the Commission, announced July 27.

"The objectives of the Nursing Division," Mr. McNutt explained, "are the same as those divisions of the Procurement and Assignment Service now dealing with the dentist, veterinary, physician, and sanitary engineer for their professions. They involve the recruitment of sufficient nurses to meet the needs of the Armed Forces and the provision of minimum adequate nursing care for the civilian population, non-military governmental agencies, and industry."

Recommendations regarding the operation of the nursing division will be made to the Directing Board of Procurement and Assignment Service, headed by Dr. Frank H. Lahey, of Boston, by a Nursing Advisory Committee. The Nursing Division is represented on all the present advisory committees to the Directing Board that are concerned with problems that affect nurses. Miss Katherine Tucker, Philadelphia, Pa., and Miss Laura Grant, New Haven, Conn., have been appointed to the Directing Board.

Miss L. Louise Baker has been named an Assistant Executive Officer of the Procurement and Assignment Service, to work under the general direction of the Directing Board and Dr. Maxwell Lapham, Executive Officer. She will have the responsibility of carrying out the functions of the Nursing Division and will be assisted by Miss Ruth A. Heintzelman. The already existing technical, clerical and statistical sections of the Central Office of Procurement and Assignment Service will be utilized and four nurse consultants will be added to the staff to supervise the work in the field.

The activities of the Nursing Division in the field will be carried out by separate State and local committees. The Supply and Distribution Committee of the State Nursing Councils for War Service, representing the various nursing organizations in each State and serving without compensation, will act as the State Committee for Nurses for the Procurement and Assignment Service and the Local Nursing Council for War Service will act as the local committee in each

community. Both State and Local Committees will function independently of but in cooperation with the State Committees for Physicians of the Procurement and Assignment Service.

CIVIL SERVICE EXAMINATIONS ANNOUNCED FOR MEDICAL GUARD-ATTENDANTS AND MEDICAL TECHNICAL ASSISTANTS

The Civil Service Commission has announced an examination to secure Medical Guard-Attendants and Medical Technical Assistants for the U. S. Public Health Service.

Applicants for *Medical Guard-Attendant* positions which pay $1,970 (counting overtime compensation) a year must be registered graduate nurses, or have had at least 3 years' service in the Medical Corps of the Army or Navy, or have had 18 months' service as hospital attendant-guards in any one of the Department of Justice penal or correctional institutions; in the Medical Center for Federal Prisoners, Springfield, Missouri; or in the U. S. Public Health Service Hospital at Lexington, Kentucky or at Fort Worth, Texas.

It is desirable that applicants should have had satisfactory experience as guards in penal or correctional institutions, as soldiers, sailors, or marines, or as hospital or asylum attendants.

Applicants for the *Technical Assistant* positions which pay $2,433 a year (counting overtime compensation) must possess the qualifications for Medical Guard-Attendant and in addition must have had 1 year of training or experience in one of the following options: Clinical Laboratory Technique, Pharmacy, or X-ray Laboratory Technique.

Applicants must have reached their twenty-first birthday. There is no maximum age limit. No written test is required. Persons now using their highest skills in war work should not apply. Appointments in Federal positions are made in accordance with War Manpower Commission policies and employment stabilization plans.

Persons who received eligible ratings under the examination announced for these positions in July, 1941, need not apply again.

Further information and application forms may be obtained at first- or second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D. C.

MEDICAL OFFICERS NEEDED FOR FEDERAL CIVILIAN WAR SERVICE

The critical shortage of physicians to engage in vital war work in the civilian branches of the Government continues. The great need for these men resulted in the announcing of a liberalized civil-service examination for Medical Officers in 1941. The Civil Service Commission has just revised and re-announced this examination.

The twenty optional branches under which doctors may apply range from General Practice to Aviation Medicine. Those appointed will perform professional duties as doctors of medicine in active practice in hospitals, in dispensaries, in the field or in rural areas; or in bureaus of the Government such as the Veterans Administration, Civil Aeronautics Administration, Public Health Service, and Food and Drug Administration. Doctors will also be used in industrial establishments under direction of the War Department.

Applicants for all grades must have received the degree of M.D. from an accredited medical school. Applicants for the Senior Medical Officer grade ($5,228 a year) must have had at least 5 years of appropriate medical experience; for the Medical Officer grade ($4,428 a year), 3 years of experience in addition to a required interneship; and for the Associate Medical Officer grade ($3,828) 1 year of interneship. The salaries quoted include overtime pay.

There are no written tests and no age limits. Persons now using their highest skills in war work should not apply for these positions. Appointments in Federal positions are made in accordance with War Manpower policies and employment stabilization plans. Before a definite offer of appointment is made, eligibles are cleared through the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, of the War Manpower Commission.

Persons rated eligible on the Medical Officer examination of 1941 need not file applications again unless they consider that they now possess qualifications for eligibility in a higher grade or different option.

Further information and application forms may be obtained at first- and second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D. C.

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

At the annual meeting of the American Medical Association three very important addresses were made, namely, by the Speaker of the House, Dr. H. H. Shoulders, President Brig. Gen. Fred W. Rankin, and President-Elect Dr. James E. Paullin.

I think it might be well to review very briefly some of the statements made. It seems to the writer that the address of the Speaker of the House was the most outstanding because he made a very definite plea for medical statesmanship. The following is a quotation: "I use the word 'statesman' in this connection as embracing all the attributes which distinguish a statesman from a politician, such qualities, for example, as broad knowledge, wisdom, vision, courage and loyalty to high principles. The politician, in the commonly accepted meaning of the term, possesses and exercises skill in the conduct of manipulations to accomplish his purposes without too much regard for their ultimate effects." He went on to state that American medicine has been blessed through the years by the benefits of a high order of medical statesmanship. The writer generally agrees with this, but not whole heartedly, because there are without question examples of men who have held high offices in American medicine, and who had none of the attributes of statesmanship that the Speaker of the House alluded to. It seems evident that the social economic changes that have taken place in the last twenty-five years are not generally accepted by the profession until they are forced to accept them. Perhaps, the most striking of these is group hospitalization. Group hospitalization was almost universally opposed by the medical profession on the theory that it would create a stepping stone or tendencies toward state medicine; it is generally accepted now that the opposite is true. There are other examples of men holding high positions in American medicine who when called upon to deliver opinions are found entirely wanting in the knowledge of the subject at hand. It was apparent that these men must have received their offices through politics and not medical statesmanship.

After listening to the address of the President and re-reading his address one begins to think seriously of the factor of heredity and environment. The writer has always thought of the President as a rugged individualist, and wonders if his associations in Washington have changed his thoughts and opinions, and if this is a direct result of environment with the New Dealers. The following is a quotation from the President's address: "It must now be apparent, even to those who have been most purblindly recalcitrant, that mighty influences set at work to effect epochal changes in the complexion of medical practice. While it would appear that these influences have suddenly loomed on the medical scene, it should be realized that they have long been forming and that the present military conflict has merely hurried their development and magnified their significance. That they can no longer be ignored seems difficult to controvert. We must face realistically these tremendously forceful socioeconomic trends which are intimately involved and deeply concerned with the nation's medical problems. The directional sign posts of postwar planning may

now be clearly read by proposals already made for broadening the social security program and extending the nation's economic resources to assure 'adequate medical and health care for all, regardless of place of residence or income status.' The complex connotations and inevitable implications of these plans and proposals make it quite apparent that the old system of medical practice will be considerably modified. If the limitless and baneful potentialities that can be projected into the science and art of the future of medicine are to be averted, it becomes imperative in this transition period that the wise and tempered counsel of the medical profession exert its proper influence. That our medical descendants should look back and point a culpable finger to our page of history which would read that our actions were 'too little and too late' is a plaguing thought. Our responsibility in approaching and participating in these evolutionary processes is greater than many of us have been willing to admit; indeed, it is intimately involved with the medical security of our country as well as of our profession. Have we so long basked in the luxuriating rays of medicine as the apotheosis of professions that we have become languid and inelastic in our attitude and hesitant and fearful in our response to existing socioeconomic developments? I sincerely hope not.

Our motives are inherently sincere. They are based on desiderata to which we have held tenaciously and which we must guard assiduously lest future progress toward higher standards in medicine and professional tenets be jeopardized. Our ultimate objectives consist essentially in the provision of the best possible preventive measures against disease, the institution of the best possible forms of therapy and the ceaseless pursuit of advances and improvements in technical procedures and other prophylactic and therapeutic measures for clinical application. It requires no percipient degree of rationalization to realize that the complete fulfilment of these objectives for the entire nation would necessitate the development of a comprehensive medical service."

The address of the President-Elect, Dr. James E. Paullin also deserves serious consideration. While, it is true that Dr. Paullin has been on several committees that took him to Washington frequently he has not lived under the environment of Washington, and up to the present time there is no direct evidence that environment has materially changed his attitude towards American medicine and our democracy. The following is a quotation from the President-Elect's address: "The officers and trustees of the American Medical Association have earnestly devoted themselves in recent years to advancement of the policies established by the House of Delegates in the field of social security. The diligence with which they have pursued this task has permitted the people of our country, under the leadership of the medical profession, to undertake the gradual development of modifications in medical practice leading toward the eventual establishment of plans distinctly our own. We face the postwar period without the restrictions of a state system of medicine, a federal or state system of compulsory sickness insurance or any of the other limitations on medical practice developed by governments abroad as a part of state control in medical care. By the exercise of American initiative we find between twelve and fifteen million Americans now insured voluntarily against the costs of hospitalization and many state and county societies, industrial organizations and private insurance companies engaged in extending protection against catastrophic illness. The initiative still rests with the people and with the medical profession in determining the kind of medical care that is to be provided in the future and in assuring the widest possible distribution of medical services to all the people. The importance of sound planning at this time for future developments cannot be overemphasized. Under the leadership of American medicine, all the agencies concerned would cooperate in formulating programs for redistribution of physicians in the postwar period, for the provision of hospitals and medical centers and for the establishment of methods for making available preventive, diagnostic and curative methods as they are developed. In such planning we should consider the obligation that we owe to ourselves and to the peoples of the countries now dominated by the Axis for the supply of needed medical personnel necessary for the rehabilitation of the sick and injured."

Illinois has reason to feel particularly proud of the election of Dr. Herman Louis Kretschmer as our present President-Elect. It seems to the writer that Dr. Kretschmer has all of the qualifications of the medical statesman and that environment will have little to do in changing his present attitude and conception of American medicine. Dr. Kretschmer has long been associated with the Board of Trustees as Treasurer (for the past 10 years) which gives him an inside knowledge of the workings of the American Medical Association, and of the men who are likely responsible for the American medicine at the present time. Aside from this Dr. Kretschmer is a distinguished urologist, a prolific writer, and a professor of urology which stamps him from a scientific point of view as a thoroughly capable man. He is a past president of the Chicago Medical Society which gives him an inside view of the workings and activities of the County Medical Society, the problems of the County Medical Society, and the problems of the general practitioner. Aside from this, he was chairman of the committee of medical economics of the Chicago Medical Society for a number of years, and devoted a great deal of his time to the study of the economic problem of medicine and various plans of the distribution of medical care.

He, therefore, assumes the high office of President-Elect with all the qualities of a scientific man, with all the qualities of a medical statesmanship and the actual knowledge of the problems of medicine from the county, state and national viewpoint.

We feel sure that under his leadership the American Medical Association will make few mistakes during the next two years.

R. K. Packard, M.D.
Chairman,
Committee on Medical Economics.

VITAL STATISTICS FOR THE SECOND YEAR OF THE WAR

A review of the vital statistics of England and Wales shows that the fall in the birth rate continued in 1941 and the rate of 14.2 per 1,000 of the population was 0.7 below the rate for 1939. This was the lowest birth rate ever recorded, being 0.2 below the previous smallest rate, which was attained in 1933, although over 6,000 more births were registered than in that year. An improvement in the birth rate has occurred during the first quarter of the present year. The rate for the March quarter of 1942 recovered to 15.5, and was the highest recorded in this quarter during the past ten years. The stillbirth rate has declined during the past few years; the rates per 1,000 total births for the four years 1938-41 were 38, 38, 36, and 35.

Infant mortality has steadily risen during the war: rates for 1939-41 were 50, 55, and 58 per 1,000 live births, but remain below the level of a few years earlier; the average rate for 1931-35 was 62. The cause of the increase is a matter for conjecture, because no data are available. It is probable that the epidemic of whooping-cough experienced during 1941 was responsible for the major part of the increase.

The main feature in the vital statistics for the first year of war was the large rise in the death rate—from 12.1 in 1939 to 14.0 in 1940. The mortality rate showed considerable improvement in 1941 and declined to 12.9.

The death rate from all causes, including violence, in the first quarter of 1942 was only 14.8, compared with 15.1, 19.9, and 17.5 for the March quarters of 1939-41.

The mortality from tuberculosis was 2,363 in excess of the average number of 1937-39, an increase of 9%. The 1941 rise in tuberculosis mortality was twice that recorded in 1916, the difference being due mainly to a rise in mortality in children. In 1916 there was no alteration in the age group under 5, and there was a 16% increase at ages 5-9; in 1941 the increase of each of these age groups was 45% above the level of 1939.

The explanation advanced by Stocks is that the additional stresses, physical and psychological, imposed by war conditions proved too much for many patients already ill with pulmonary tuberculosis, so that they died in 1940 or 1941, before they would otherwise have done. The physical stresses were undoubtedly aggravated by the policy of closing sanatoria at the beginning of the war, and this probably advanced the date of death of many patients.

Other infectious diseases in which there were significant increases were cerebrospinal fever, whooping-cough, and enteric infections.

The deaths from most of the other diseases in 1941 were in excess of the average of 1937-39. The most notable increase was that of coronary disease, in which there were 2,062 deaths in excess, an increase of 13%. The excess of deaths from pneumonia and bronchitis over the total for 1939 was probably due to conditions arising from air raids, actual or expected, combined with the severe winter, although the winter of 1939 was severe too.—*British Medical Journal.*

Two Gremlins were having a little argument way up in the blue. One said to the other:

"Oh, so you don't believe in airmen?"

—*Argosy.*

Medicine's Role in the War Effort

ARMY SPECIALIZED TRAINING PROGRAM FOR MEDICAL STUDENTS

The War Department has sent the following letter to the deans of all participating medical schools:

It is anticipated that training in medicine, dentistry and veterinary medicine under the Army Specialized Training Program will have been initiated by July 23 in all approved schools of medicine, dentistry and veterinary medicine, with the exception of the Woman's Medical College of Pennsylvania.

The assignment of enlisted men to the Army Specialized Training units at these institutions is, until further notice, restricted to those who are currently enrolled in these schools, to those who have been accepted by them for entering classes in medicine and dentistry and to accepted preveterinary students who are members of the Enlisted Reserve Corps.

The present restriction of selection for the continuation of preprofessional and assignment for professional training under the Army Specialized Training Program to the enlisted men who have assured individual vacancies in approved schools, through their acceptance for a future entering class, is necessitated by the fact that the freshmen classes have been filled for 1943, the first half of 1944 and, in a number of instances, for late 1944. If these accepted applicants are in or enter active military service, they will be assigned to the Army Specialized Training Program for the completion of the prerequisite preprofessional training and subsequent timely transfer to the Army Specialized Training unit at the school by which accepted.

It is obvious, however, that the medical and dental schools cannot continue to fill their future freshman classes from civilian sources only: many students contemplating or preparing for the study of medicine or dentistry will have been inducted into one of the armed forces before acceptance by an accredited school is possible. If the supply of physicians and dentists, not only to meet the requirements of the armed forces but also for postwar civilian needs, is to continue beyond those now in or accepted for professional training, appropriate steps must be taken by the Army and by the Navy to assure necessary preparatory studies by qualified individuals in the military service, with a view to subsequent professional training in medicine and dentistry.

In order that detailed plans may be made for such premedical and predental training under the Army Specialized Training Program, it is necessary that the War Department determine the number of Army trainees who may be assigned to Army Specialized Training units at medical and dental schools in future freshman classes. The program of the Army will require at least 55 per cent of the vacancies in medical schools and 35 per cent of those in schools of dentistry. No trainees, other than as stated above, will be assigned to units at schools of veterinary medicine.

How Medical Students Will Be Selected

The purpose of this letter is to explore the possibility of a mutual agreement whereby carefully selected enlisted men not accepted as individuals by the individual schools of medicine or dentistry may be assigned to Army Specialized Training units thereat for professional training with a view to receiving the appropriate degree in medicine or dentistry, and appointment as first lieutenants in the Medical or Dental Corps of the Army of the United States.

The procedures involved in the selection and training of the enlisted men whom you will be requested to train in medicine or dentistry may be outlined briefly as follows:

On entering the Army, the recently inducted soldier is given certain classification tests, the results of which are entered on the record which accompanies him to the unit or installation in which he receives his basic military training, thirteen weeks in duration. Those with certain high scores will there appear before the Army Specialized Training Program field selection boards for determination whether they should be assigned to this

program for training at the college level. The actual field of such training and the academic level at which training should begin will be determined at the classification and assignment unit to which the selected soldiers are first assigned (Specialized Training and Reassignment Unit, referred to as a STAR Unit).

From the STAR unit candidates who are manifestly suitable for or interested in the study of medicine or dentistry will be transferred to an appropriate training unit to begin preprofessional instruction at the basic level. The preprofessional curriculum of the first two terms, of twelve weeks each, is common to that followed by trainees tentatively selected for engineering studies: mathematics, physics, general chemistry, English, and so on.

It is during the second term that the real selection for preprofessional training is made, with a view to subsequent training in medicine or dentistry. Representatives of approved schools of medicine and dentistry will participate in this selection. It is on them that the War Department is depending for the most careful determination of the enlisted men who should continue training in preprofessional studies. Since premedical and predental training, per se, is of little value in the military service, attrition must be held to the minimum. At this level the trainees not considered fully qualified, especially as regards fitness and aptitude for and attitude toward the study and practice of medicine and dentistry and service as officers in the Medical or Dental Corps of the Army of the United States, may be considered for training in other fields.

The trainees selected for future training in medicine or dentistry begin, in the third term, their biologic studies. These continue through term IV and term V, the last term. Organic chemistry and psychology are added in the fourth and fifth terms. In these two terms eight semester hours are available for subjects selected by the institution based on the special aptitude and interest of the trainee. This will permit a brief refresher course in a modern foreign language for trainees who have had appropriate previous instruction. It has not been considered possible to include such a course as a prescribed subject throughout the five terms.

Progress of Trainees Will Be Checked

The progress of the premedical trainee will be checked both by the usual faculty examinations and also by periodic nation-wide tests. The enlisted men who satisfactorily complete the premedical curriculum will be considered available for transfer to Army Specialized Training units for further training in medicine or dentistry. Such assignments must necessarily be governed by timely regional vacancies. The Army trainee will not make application for matriculation nor will he be accepted individually for a vacancy reserved for the War Department. His fitness for the study of medicine or dentistry has been determined. If recommended at the completion of preprofessional training he will be academically qualified. If it is proved that he cannot continue satisfactory progress in his medical or dental studies, he will be relieved from the Army Specialized Training Program for assignment to other duties.

While it is felt that in the future the complete task of preparing physically qualified male students for the study of medicine or dentistry will devolve principally on the Army or the Navy, it is certain that premedical and predental students will continue to enter the military service at various academic levels. At the completion of their basic military training these individuals must be given serious consideration for the continuation of their preprofessional training and subsequent professional training under this program. The selection of these enlisted men for such training will be made at STAR units and must be conducted with the same care as, indeed with even greater care than, that applied to trainees whose complete collegiate training has been under either the Army or the Navy program. Separate curriculums have been arranged for such trainees.

Contracts With War Department

Within the near future negotiations will be begun with your institution for a contract with the War Department for the training of enlisted men in medicine or dentistry under the Army Specialized Training Program. This contract will contain provisions whereby the school will agree to train the enlisted men currently enrolled and those who have been accepted by the school for certain entering classes. It will also stipulate that, for the freshman class of the academic session agreed on by you and the negotiation officer, and for subsequent entering classes, you will make available to the War Department a specified number of vacancies for Army trainees. The number desired by the War Department represents, as already stated, approximately 55 per cent of the first year classes in medicine, 35 per cent of those in dental schools. The Navy is, I understand, requesting 25 per cent of such vacancies in medical schools, 20 per cent in dental schools.

Because of the necessity of assigning Army trainees to fill these vacancies on a strictly numerical rather than on a name basis, no assurance can be given that individual students accepted by you for classes in which a definite number of vacancies have been reserved for the War Department will be assigned to the Army Specialized Training unit at your school. It is realized that such a policy will limit the personal selection of medical and dental students which has proved so satisfactory and successful in previous years. However, no plan whereby individual assignment to these units may be effected appears feasible.

The transfer of medical or dental trainees from one unit to another is not contemplated, except,

of course, in the case of medical trainees who have successfully completed their training in the schools of the basic medical sciences. It is felt that such trainees may advantageously be transferred as individuals, and to this end it is requested that arrangements now in force between the deans of the various approved schools of medicine be continued.

The War Department and my division fully appreciate the wholehearted cooperation which has characterized the attitude of the medical and dental schools toward the Army Specialized Training Program. I feel confident that this radical departure from the admissions procedures previously in operation at your school may be effected without detriment to sound medical and dental education.

Herman Beukema, Colonel, G. S. C.
Director, Army Specialized Training Division.

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NEW PROGRAM TO PROVIDE TRAINING FOR NURSES

Thomas Parran
Surgeon General, U. S. Public Health Service

The Bolton Act, approved on June 15, provides "for the training of nurses for the armed forces, governmental and civilian hospitals, health agencies and war industries, through grants to institutions providing such training, and for other purposes" (Public Law 74). The provisions of this war emergency law should aid in alleviating the serious nursing shortage throughout the country.

The act was drafted with the full cooperation of nurse training institutions, hospitals, the nursing profession and governmental agencies. Need for the measure was emphasized by the Health and Medical Committee, Federal Security Agency, of which Dr. Irvin Abel of Louisville, Ky., is chairman. Representatives of many hospitals and leading hospital associations also have urged that some such program be established by the government. The bill was passed by both houses of the Congress without a dissenting vote, and an appropriation sufficient to inaugurate the program has been approved. I hope for the participation of all eligible schools and immediate intensive recruitment of large fall classes.

A recentralized plan of operation has been established by the U. S. Public Health Service, the agency designated by Congress to administer the act. Training institutions will submit plans meeting the several requirements of the act, and funds will be paid to institutions when plans are approved. Subject only to meeting minimum requirements, full responsibility for carrying out the nurse training program remains as at present, with the training school.

An advisory committee of not less than five members is provided by the act to assist the Surgeon General of the U. S. Public Health Service in formulating rules and regulations to carry out the purposes of the act. The Federal Security Administrator has named nine persons representing "the nursing profession, hospitals and accredited nurses training institutions."

Members of the Advisory Committee are Dr. Oliver C. Carmichael, president of Vanderbilt University, Nashville, Tenn.; James A. Hamilton, director, New Haven Hospital, New Haven, Conn.; Miss Marion Howell, dean, Frances Payne Bolton School of Nursing, Western Reserve University, Cleveland; Sister Helen Jarrell, dean, Loyola University School of Nursing, St. Bernard's Unit, Chicago; Dr. Hyrum Leo Marshall, professor of public health, University of Utah, Salt Lake City; Rev. Fr. Alphonse M. Schwitalla, dean, St. Louis University School of Medicine, St. Louis; Miss Isabel M. Stewart, director, Division of Nursing Education, Teachers College, Columbia University, New York; Miss Margaret Tracy, director, School of Nursing, University of California, Berkeley; Miss Anna D. Wolf, director, School of Nursing, Johns Hopkins Hospital, Baltimore.

The first meeting of the committee was held in Washington on June 25 and 26 (The Journal, July 3, p. 683). Regulations growing out of decisions reached at this meeting will be published promptly.

Student nurses who receive training under the Bolton Act will be members of what the Advisory Committee voted to designate "U. S. Cadet Nurse Corps." These students will be provided with tuition, stipends, maintenance, fees, distinctive insignia and uniform, including a street uniform. Graduate nurses taking refresher and postgraduate courses provided by the new act as an extension of the "Training for Nurses" (National Defense) Act now in effect will not wear street uniforms.

The law sets forth rather fully the requirements which must be submitted for approval by the institution wishing to participate in the program. The institution has the choice of two speed-up plans for training, one requiring twenty-four months, the other thrity months.

Stipends to students under both plans will be not less than the following monthly rates: $15 for the first nine months of study, $20 for the following fifteen to twenty-one months of combined study and practice, depending on the curriculum of such institution and $30 for the period following the period of combined study and practice and prior to graduation. The government institutions pay for stipends given students during the first two periods of the course, for maintenance during the first nine months, for uniforms and insignia, and for reasonable tuition and fees throughout the courses of study and training. Institutions pay stipends during the final period of training and provide maintenance after the first nine months.

During the terminal period of training the institution will either afford student nurses under the plan an opportunity to complete their course of training until graduation, paying them a monthly stipend of not less than $30, or transfer the student

for training to some other institution if such training may be credited toward graduation. In the latter case the institution to which the student nurse is transferred agrees to pay her a monthly stipend of not less than $30 until graduation.

Funds to institutions will be paid quarterly in advance in the amounts estimated in order to enable institutions to carry out the provisions delegated to them by the act. Subsequent allotments can be increased or decreased, depending on how accurate the initial estimates have proved to be.

In return for training in the profession of nursing without cost to themselves, student nurses who enroll as members of the U. S. Cadet Nurse Corps agree to make their services available to the government or for essential civilian nursing duties for the duration of the war. Any student nurse who has enrolled since Jan. 1, 1941 in a school of nursing participating in the federal plan is eligible to join the corps.

Students who enrolled in the corps ninety days prior to the end of the war will be permitted to complete their training. Thus, members of the corps need not fear that their training will terminate before the course is completed.

The shortage of nurses has reached the danger point. Civilian hospitals are carrying peak loads. Some of them have closed units because they are unable to secure sufficient numbers of nurses. In industrial boom areas, nurses are needed for hospitals, war plants and public health services. Health agencies in all areas report a critical shortage of nurses.

To reach the 1943 goal of 65,000 new student nurses, which is actually somewhat short of the real need, more than 10 per cent of the approximately 600,000 girls graduating from high school each year must be secured.

In the new training program student nurses will be provided with a lifetime profession and at the same time have the satisfaction of gaining recognition for rendering a national war service.

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SALE OF PENICILLIN RESTRICTED

The War Production Board has issued allocation order No. M-338 which states that on and after July 16 no supplier shall use or deliver penicillin except as specifically authorized in writing by the War Production Board. The word "supplier" in this order means any person who produces penicillin, imports penicillin or purchases penicillin for resale as penicillin but shall not include any retail pharmacist, hospital or physician.

The order points out that the fulfilment of requirements for the defense of the United States has created a shortage in the supply of penicillin for defense, for private account and for export.

ADDITIONAL ALLOTMENT IN ILLINOIS FOR OBSTETRIC CARE TO WIVES OF SERVICE MEN

The state director of public health of Illinois, Dr. Roland R. Cross, announced on June 15 that the U. S. Children's Bureau had granted his request for an additional June allotment of $86,000 to be used in paying physicians and hospitals for obstetric care to the wives of service men and pediatric care to their infants in case of acute illness. The demand for this service has increased greatly. In May alone the Illinois Department of Public Health authorized care for about 550 cases, or nearly as many as were authorized in the preceding six months. The regulations governing this project in Illinois, as approved by the state medical society, provide that the applications for this medical care should be signed both by the service man's wife and by the licensed physician of her choice and submitted to the state department of public health in advance. The necessary forms may be obtained from local health and welfare offices and Red Cross chapters or directly from the State Department of Public Health at Springfield.

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WARTIME GRADUATE MEDICAL MEETINGS

Medical Schools Cooperate in Graduate Education

Under the auspices of the Wartime Graduate Medical Meetings arrangements have been made with fifty-five medical schools, through the Council on Medical Education and Hospitals, to participate in the teaching programs. The faculty members have already been designated from the University of Chicago, the University of Louisville, Emory University School of Medicine, Yale University and New York University.

The section committees of the Wartime Graduate Medical Meetings are engaged in conferences with commanding officers of service hospitals in their areas, selecting subjects, dates and teaching personnel for graduate courses. A recent directive was issued from the Office of the Surgeon General of the Army calling attention of commanding officers to this educational project and urging their cooperation and active participation.

THE NEED FOR MORE ARMY NURSES

Army nurses are now stationed in thirty-five bases outside the United States as well as at 537 stations in the continental United States, the War Department announced on June 1. The need for more Army nurses remains pressing. Recruitment of nurses took an upward trend in the first three months of 1943, but the opening of new hospitals and an increasing number of overseas assignments are depleting the number of nurses in the reserve pool. It is estimated that one out of every four nurses in the nation will be needed by some branch of the armed forces by the end of this year. Courses in military orientation and physical conditioning established throughout the nation for Nurse Corps units generally require four weeks of class room application and drill ground calisthenics at the time the nurses enter the induction centers for enrolment in the corps. Heading the Army Nurse Corps is Col. Florence A. Blanchfield, who was formally appointed superintendent of the corps in June 1. Prior to the retirement of Col. Julia O. Flikke as superintendent of the Army Nurse Corps, she was assistant superintendent, with the rank of lieutenant colonel.

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PROCESSING PHYSICIANS IN THE FIELD

New instructions have been issued by the Officer Procurement Service and the Procurement and Assignment Service concerning the recruitment of physicians.

All available physicians are mailed invitations to seek commissions by the Procurement and Assignment Service. The invitation should be marked by the physician, indicating his choice of service, returned to the state chairmen, Procurement and Assignment Service, and forwarded to the appropriate agency. All requests for army appointments, including the Army Air Force, will be turned over to the Officer Procurement Service for processing and completion of the application.

The director of Naval Officer Procurement Service will handle requests for appointment in the Navy. Recent memoranda to the Officer Procurement Service stress urgent need for additional medical officers for the Army and describe technics to be employed.

RECORD LOW DEATH RATE IN EVACUATION HOSPITALS

The Surgeon General of the Army, Major Gen. Norman T. Kirk, is reported to have said in New York on July 8 that the death rate in the army's evacuation hospitals during the African campaign as "the lowest rate of any army at any time" and was between 2.5 and 3.5 per cent of admissions in comparison with a mortality rate during the last war in such hospitals of 15 per cent. General Kirk ascribed the recent low record to the use of plasma, excellent surgery and sulfonamide drugs. He said that blood plasma given at the front lines saved lives which would have been lost if not available for the treatment of cases in shock; he added that "the cream of surgery in America, the middle aged and the younger men who have been teaching," have been stationed at evacuation hospitals at the front.

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CALL FOR UNUSED X-RAY EQUIPMENT

The Safety and Technical Supplies Division of the War Production Board has issued a statement calling on physicians and dentists throughout the country to release their x-ray equipment not now in use in order to provide sufficient x-ray equipment for civilian needs.

"Members of the medical and dental professions going into the armed services and all others who are temporarily not using their x-ray apparatus are urged to dispose of it," Francis M. Shields, director of the Division said. "The demands for this equipment by the armed forces are heavy and will necessarily increase. Moreover, production is limited by shortages of critical materials, skilled workers, and other factors. It is imperative that every item of x-ray equipment should be kept at work.

"Doctors and dentists who are not now using their apparatus should sell it, not only as a patriotic duty but also as a matter of self interest. Because of rapid developments that are taking place, the doctor who stores his equipment when he goes to war may well find that it is obsolescent and of no use to him when he returns to civilian life and private practice. He can far better serve both his country and himself by letting some one else use it now, when it is so greatly needed.

"An inventory of used x-ray equipment avail-

able for sale is being compiled by the Safety and Technical Supplies Division, and well over a thousand items are already registered. All owners of idle apparatus are asked to report to the Division, on Form WPB 1976, giving complete data about the equipment, its condition and selling price. Some of the equipment already registered is too old or broken down to be of use; what is needed is apparatus capable of active service but now idle. Doctors, dentists, distributors, etc., looking for used equipment are in turn asked to make their needs known to the Division, so that their requests may be checked against apparatus that is for sale.

"Under the terms of Limitation Order L-206 issued in October 1942," Division officials explained, "the sale of new x-ray equipment is registered to the armed forces and civilian purposes approved by WPB."

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DENTAL HYGIENISTS NEEDED FOR ARMY DISPENSARIES

To supply the Army with dental hygienists, the U. S. Civil Service Commission has eliminated the experience requirement for such personnel. Many hygienists are in demand for army hospitals and dispensaries throughout the country, particularly in the West and Southwest. Dental hygienists are under federal civil service regulations and are stationed only within the United States. They receive $1,970 a year entrance salary including overtime pay. The work week of forty-eight hours includes eight hours of overtime.

Completion of a course in a recognized school of oral hygiene and registration as dental or oral hygienist is all that is necessary to qualify for the positions. There are no age limits and no written tests. Standard application forms must be filed with the United States Civil Service Commission, Washington, D. C. Persons studying oral hygiene may also file, receive provisional appointments, and enter on duty after completion of their courses and registration. Persons who are willing to work in any part of the country have the greatest chance of receiving appointment within a short time. Applicants who desire information about living conditions in areas where army hospitals and dispensaries are located should, on receiving offer of appointment, get in touch with the appointing officer for such information. It is possible that vacancies will occur in the Public Health Service and the Veterans' Administration. Persons already being utilized to their fullest capacity in war work should not apply. Federal appointments are made in accordance with War Manpower Commission policies and employment stabilization plans. Persons selected for appointment may be required to secure statements of availability, but these need not be secured until offer of appointment is received.

Application forms may be obtained at post offices, at Civil Service regional offices and at the U. S. Civil Service Commission in Washington, D. C.

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COMMISSIONS FOR WOMEN PHYSICIANS

Women Physicians who are at present either members of the Women's Army Auxiliary Corps or Contract Surgeons may now secure commissions in the Medical Corps, Army of the United States. They should apply to the Office of the Surgeon General, Washington, D. C. If the application is approved after clearance by the Procurement and Assignment Service, it will be forwarded to the Officer Procurement Service for further processing. Members of the WAAC will then secure a release through channels from the Director, Women's Army Auxiliary Corps. Contract Surgeons will be similarly processed except that they will be released by the Commanding General of the Service Command by whom their contracts were effected, or in the case of the Military District of Washington by the Surgeon General.

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RESTRICTIONS ON DELIVERY OF CAFFEINE AND THEOBROMINE

The War Production Board has amended conservation order M-222 to provide that no supplier shall deliver caffeine or theobromine to any person except as specifically authorized or directed in writing by the War Production Board, and no person shall accept delivery of caffeine or theobromine which is delivered in violation of this order. However, specific authorization in writing of the War Production Board is not required for the (1) delivery of these drugs for medicinal purposes by any supplier to any person for compounding into standard dosage forms,

(2) delivery of caffeine or theobromine by any person to any other person for compounding into standard dosage forms for medicinal purposes pursuant to toll agreement or (3) delivery by any supplier to any person in any calendar month of not more than 2 pounds of theobromine and not more than 2 pounds of caffeine. These and other amendments to conservation order M-222 were published by the War Production Board, Washington, D. C., on July 6.

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FEMALE DIETITIANS AND PHYSICAL THERAPY AIDES IN MEDICAL DEPARTMENT OF ARMY

Under an act approved on Dec. 22, 1942 the Congress authorized for the duration of the war and for six months thereafter the employment in the Medical Department of the Army of such female dietetic and physical therapy personnel as are considered necessary by the Secretary of War. Regulations have recently been issued under which such appointments will be made (8 Federal Register 7525, June 8, 1943). According to these regulations the director of dietitians or of physical therapy aides will hold the rank of major, a chief dietitian or chief physical therapy aide the rank of captain, a head dietitian or head physical therapy aide the rank of first lieutenant, and a dietitian or physical therapy aide the rank of second lieutenant.

Original appointments will be made in the grade of dietitian or physical therapy aide, except original appointments made in theaters of operation outside the United States, in which case appointments will be made in such grades as the Surgeon General may deem appropriate. The director of dietitians and the director of physical therapy aides will be designated as such by the Secretary of War for a period of four years, unless sooner terminated. Application for appointment should be made to the Surgeon General, who will furnish the necessary blank forms. The same regulations as to marital status will apply to dietitians and physical therapy aides as apply to Reserve nurses, and the same physical standards will be required as are required for appointment in the Army Nurse Corps. Appointments will not be made after the applicant has reached her forty-fifth birthday.

An applicant to be eligible for appointment as a dietitian must have a bachelor's degree from an approved college with either a major in foods and nutrition or in institutional management. In addition she must have completed a training course for dietitians approved by the Surgeon General. Two years of experience in a hospital approved by the Surgeon General may be substituted for the training course but only in case the experience includes diet therapy, planning adequate menus, supervising employees in food preparation and service, controlling food costs, and ordering food supplies and equipment. One year of such experience must have been within the past ten years.

The minimum requirement for appointment as a physical therapy aide will be completion of two years in an approved college with major emphasis on physical education or biologic science, or graduation from an accredited course of nursing, and in addition the applicant must have completed a training course in physical therapy approved by the Surgeon General.

Female dietitians and physical therapy aides employed by the Medical Department of the Army in the continental United States prior to March 31, 1943 may be appointed in the Medical Department of the Army if they meet the physical requirements, are recommended by the commanding officer of the hospital as being suited to the military service and have had training and experience acceptable to the Surgeon General. Similar provision is made for the appointment of female persons employed by the Medical Department in a civilian status as dietitians or physical therapy aides in overseas hospitals prior to March 31, 1943.

An applicant otherwise qualified will be authorized to appear at her own expense at the nearest army station having adequate facilities for completing a final type physical examination. The first assignment of a dietitian or physical therapy aide will ordinarily be made to a station in the United States, other than appointments made overseas, to afford an opportunity to become familiar with military and medical department procedures. When available, quarters in kind for dietitians and physical therapy aides will be furnished, with due consideration for their relative rank and standard items of bedroom furniture will be furnished. Dietitians and physical therapy aides will be subsisted under the provisions of existing regulations for the operation of messes for duty and patient personnel in an officer status.

The lesson taught repeatedly in the study of tuberculosis will probably one day be found equally true of other conditions. Basically a bacterial infection, this disease lies dormant only to flare up violently when the barriers raised by adequate nutrition are broken down. Denmark's experience in the last war was a classic example of the relationship between food and this disease. A thirty per cent rise in the mortality from tuberculosis occurred in 1916-17; a similar rise was noted in the belligerent countries and in Holland, continuing to the end of the war. In Denmark, however, after a blockade that prevented the export from that country of foodstuffs — chiefly meat, fish, butter, and milk — there was a prompt fall in the death rate. J. A. Johnston, M.D., Henry Ford Hosp., Nat. Parent-Teacher, Apr. 1943.

Original Articles

THE TREATMENT OF BURNS

HENRY N. HARKINS, M.D., Ph.D., F.A.C.S.
DETROIT

The subject of burn therapy is assuming an ever-increasing importance. The frequent incidence of burns among naval and land casualties in the present war is so well known as to need no re-emphasis. There is necessity, however, to clarify at this time the general principles of burn treatment. Considerable confusion has arisen from the influx of numerous new remedies which have been added to the many already in vogue. Only by a clear understanding of principles can a logical choice of burn treatment be made in any particular case.

The treatment of burns may be divided into four phases as follows:

1. General treatment of the burned patient.
2. Local care of the burn wound.
3. Early plastic care of granulating surfaces such as occur by definition in third degree burns.
4. Late plastic care of deformities.

Only the first three of these phases will be considered in this paper. This is because these three elements of burn treatment should be performed concurrently and conjointly; one is not complete without the others and two of the three alone are not enough; and because they must often and preferably should be performed by the same surgeon. In other words, for proper care of a severe burn the general care, local care and early plastic care should be made to flow smoothly one into the other. Delays between them are dangerous. Good local treatment without adequate general care may lead to a clean wound but a dead patient. Similarly, proper early care without prompt grafting of granulating surfaces is like doing a cholecystectomy and then forgetting to close the abdominal wound.

On the other hand, the late plastic care of deformities and scars, once the granulating surface is healed, should often be delayed several months, is usually not urgent, can wisely be performed by another surgeon, perhaps thousands of miles away, and is a separate chapter in the care of any particular burn patient.

Consideration will now be given in detail to the co-ordination of the first three phases of burn treatment.

1. GENERAL TREATMENT OF THE BURNED PATIENT

This element of burn care is of extreme importance. In the early stages it primarily consists of the prevention and treatment of shock. Burn shock is essentially, even though not entirely, due to the loss of blood plasma from the weeping burned surface and into the damaged burned tissues. Consequently, efforts should be made to control the loss of plasma and to restore the blood volume by an amount of plasma equal to that already lost. Crystalloid solutions (saline, glucose, Ringer's solution, etc.) are of only temporary value in this respect as they tend to leak out of the injured blood vessels. Whole blood is useful, but the erythrocytes are of no value at this stage of burn treatment and make blood typing and cross-matching necessary. Plasma is lost and plasma should be restored. Of especial importance is the amount of plasma that is given. It is no more logical to give every burned patient just one pint of plasma than to give every diabetic patient just

From the Division of General Surgery, Henry Ford Hospital, Detroit.
Given before the North Shore Branch of the Chicago Medical Society, April 6, 1943.

10 units of insulin. In severe cases several liters of plasma may be needed and the amount should be calculated by two methods devised by the author.

1. *Hospital method.* When laboratory facilities are available, the simplest technic is to give 100 cc. of plasma for every point the hematocrit is above the normal of 45. The method applies to adults; for children the amount of plasma is calculated proportionately according to body weight, with the average adult weight set as 70 kilos. If the plasma protein level is below normal, this method gives too low a value. In such a case an additional 25 per cent of the calculated amount of plasma should be added for every gram the protein level is below 6 Gm./100 cc. When hemoglobin determinations rather than hematocrit readings are available, 50 cc. of plasma should be given for every point the hemoglobin is above the normal of 100. When red cell counts are used as the basis of calculations, 50 cc. of plasma should be given for every 100,000 the red count exceeds the normal of 5,000,000. When the amount of plasma indicated by one of these indices has been given this does not mean that the treatment is finished. Plasma continues to leak out of the injured capillaries during the first 36 hours following the burn and repeated observations of the hematocrit (or hemoglobin or red count as the case may be) as often as every three hours may be indicated in serious cases, followed by prompt administration of the amount of plasma indicated.

2. *First aid method.* When laboratory facilities are not available, the dose of plasma may be alcculated according to the extent of the body surface involved by the burn. This is estimated by Berkow's formula, and 50 cc. of plasma should be given for every per cent of the body surface affected by a deep (blistering) burn. This method roughly gives the entire amount of plasma that will be necessary; this amount should not be administered all at once but according to the following schedule: one third the first two hours, one third the next four hours and one third the next six hours.

Besides the all-important use of blood plasma, standard and empiric methods of treating shock should be used. These include the conservation of body heat, elevation of the foot of the bed, rest, quiet, oxygen, and possibly the use of adrenal cortical steroids.

In addition to the therapy of burn shock, burn toxemia and burn sepsis should be prevented and treated in so far as is possible.

2. LOCAL CARE OF THE BURN WOUND.

Such treatment not only requires meticulous care in its own performance, but should always be carefully correlated with the general management of the burned patient. In a recent book on burns by the present author, over eighty different methods of local treatment were listed, testifying to the confusion that exists over this aspect of burn therapy. It is impossible to list all of these methods here, but in general they can be classified into three main groups as follows:

a. *Tanning and coating agents.* Tannic acid spray, tannic acid jelly, tannic acid baths, tannic acid-silver nitrate, gentian violet, gentian violet-silver nitrate, triple dye, ferric chloride, brilliant green, sulfadiazine spray, etc. Of these agents, two deserve especial attention at this time:

(1) Tannic acid-silver nitrate. This is the most popular of the tanning agents at the present time and produces a tan in a matter of minutes or even seconds, while other slower tanners like tannic acid jelly may take days to accomplish the same purpose. An unusually high incidence of liver necrosis has been reported from those clinics using the slow tanning method. It would seem that the dangers of using tannic acid jelly are so great that its use should be stopped entirely. The increased toxicity is probably due to the absorption of tannic acid or tannates over the prolonged period of time during which the substance is in contact with the tissues in a moist and easily absorbable form. The recent article by Erb, Morgan and Farmer (1943) gives statistical data on liver necrosis associated with tannic acid in their fatal cases.

(2) Sulfadiazine sprays and films. These have been especially advocated by Pickrell and have several points of merit. Pickrell originally (1941) advocated a solution of 3 per cent sulfadiazine in 8 triethanolamine. This was sprayed on the burn every hour the first day, every two hours the second, every three hours the third, and every four hours the fourth day. Later Pickrell used a fluid sulfadiazine film which has the following compositions:

2% Sulfadiazine
2% 2-amino-2-methyl-1, 3-propanediol
7.5% Methocel (25 cps)
0.1% Aerosol OT
0.1% Sod. Benzoate
Water to make 100 cc.

More recently Pickrell used 2 per cent sulfadiazine, eliminating the solvent, propanediol, which helps to hasten the drying time. This latter solution is quite viscous but can be sprayed with a No. 261 DeVilbiss hand atomizer, a spray gun, or as Pickrell more frequently does, can be applied to the burned surface with an ordinary paint brush. The film will have formed in less than an hour on relatively dry surfaces. On a moist wound a slightly longer time is required, but drying can be hastened with the aid of a hair dryer. In either case, one application of the solution is usually all that is necessary to produce a transparent film of satisfactory thickness. For use in the outpatient department, preformed films containing 10-15 per cent sulfadiazine have been found especially applicable. These preformed films have the advantage that the dressing need not be changed for a week or more. Such a film is made by Pickrell in the following manner:

"Suspend 50 grams methocel (15cps) in 500 cc. boiling water. Freeze over night. To water add 25 grams sod. sulfadiazine, 20 glycerin, 20 propylene blycol, 10 carbowax (4,000). Make to 250 cc. Freeze over night. The following morning, mix the two solutions, strain through gauze, and using a pressure spray gun, spray on horizontal glass surface which has been cleaned with aerosol. Film will have formed in less than one hour under an infra red lamp. Films can be sterilized in water-proof cellophane."

For burns around the face, genitalia, etc. to which it is difficult to apply and maintain a dressing, Pickrell used a sulfadiazine gel which dries in about five minutes, also producing a transparent film. It has the following composition:

12.5% methocel (15cps)
3.0% Sulfadiazine
8.0% triethanolamine
1.5% carbowax (4,000)
1.5% carbowax (1500)
0.1% Butoben (Parahydroxybutylbenzoate)
0.05% aerosol OT
Water qs. ad 100 cc.

b. *Washing methods.* Saline baths, water baths, Bunyan envelopes, saline dressings, etc. Such methods are of especial value in old burns or in burns about the hands, face, or genitalia. The Bunyan envelope is especially popular in Great Britain for the treatment of deep burns of the hands (airman's burn).

c. *Ointments.* Vaseline gauze, zeroform gauze, scarlet red, paraffine, etc. Ointments have been applied to burns since Hippocrates (ca. 430 B.C.) advised the use of "old swine's seam mixed with resin and bitumen." Ointment dressings have always had the advantage of not sticking to the burned eschar and of being easily removed, but at the same time they have been accompanied by considerable infection. The recent incorporation of sulfonamides in the ointments has reduced the infection to some extent, while perhaps more important the combination of pressure with the ointment dressing as advocated by Koch has not only reduced infection, but at the same time has controlled plasma loss.

The method of Koch deserves special emphasis at this time. It essentially involves three phases:

(1) *Washing of the burn wound.* This should be done gently, under aseptic precautions, and using white soap, water, and soft sterile cloths. The burn wound should be treated like any other wound and while the cleansing should be thorough, its gentleness should be such that general anesthesia is not required. The successful outcome of burn patients treated after the recent Boston Cocoanut Grove disaster without washing, as first suggested by Cope (1935) is to be considered in deciding on a future plan of treatment. This technic probably should be further tested under carefully controlled conditions before being finally adopted.

(2) *Application of a bland ointment gauze.* It would seem that the exact nature of this gauze is of secondary importance. In general a fine mesh gauze is preferable and the impregnating substance may be any of the following:

(a) Vaseline gauze (Siler and Reid, 1942).
(b) Zeroform gauze (Koch).
(c) 20% sulfathiazole emulsion in aquaphor gauze (Dragstedt, 1942).

(d) Sulfathiazole emulsion (M.G.H. formula) (Gurd, 1942).
(e) Scarlet red guaze (Romence, 1942).
(f) Boric acid ointment gauze (Churchill, 1942).

The author's personal preference is for the boric acid ointment gauze, believing that the incorporation of a sulfonamide is of secondary importance.

(3) *Application and maintenance of uniform pressure.* This is one of the essential features of the method. The use of generous amounts of sterile mechanic's waste as a buffer and distributor of the pressure is important. Mechanic's waste is much cheaper and easier to handle than sea sponges. Over the entire dressing an elastic bandage (ace, tensor, curity, tetra, etc.) should be applied. These bandages may be used again while elastic adhesive which has certain advantages, has the objection that it cannot be used twice. Such a bandage should not be changed for 7 to 12 days. In some cases splints should be used along with the pressure.

3. EARLY PLASTIC CARE OF GRANULATING SURFACES

Third degree burns are by definition those which produce granulating surfaces. Until these surfaces are healed, the patient is the subject of continued hemorrhage and plasma loss, he is in constant danger of all sorts of septic complications, and the longer the granulations remain, the worse will be his cosmetic and functional deformity. In all cases the so-called principle of closure of the wound should be carried out. As long as a granulating area is present, the burn is not healed and the wound is not closed. As already stated in the realm of abdominal surgery one would not think of attempting a cholecystectomy if he did not know how to close the abdomen. Similarly, no physician should treat severe burns who does not know when and how to skin graft the resulting granulating surfaces. Any burn granulating surface more than two inches in diameter, or which appears that it will take more than three additional weeks to heal should be skin grafted. Skin grafting of burns is most simply done when the dermatome is used. The technic of skin grafting is adequately described elsewhere, and will not be mentioned in detail here. The dressing of skin grafts is identical to that of a primary burn when the latter is treated by the Koch method. This includes bland ointment gauze covered by a uniform pressure dressing.

CONCLUSIONS

1. Burn treatment should be a continuous process with careful correlation of the local, general, and skin grafting phases.

2. One of the chief items in the general treatment is the control of burn shock with adequate doses of plasma. The plasma dosage for a average sized adult is best calculated by giving 100 cc. of plasma for every point the hematocrit exceeds the normal level of 45. In serious cases repeated observation coupled with repeated administration of the required amount of plasma is necessary.

3. In applying any local treatment, the application of general principles and meticulous technic are absolutely essential. The method of careful cleansing of the burn wound followed by the application of a bland ointment gauze which in turn is covered by a carefully fashioned and uniform pressure dressing is a highly useful form of local burn therapy.

4. The earliest possible skin grafting of granulating surfaces is mandatory in all cases.

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I was talking to a WAC the other day, and I asked her how she liked being in the service, and she said, "I like it all right, except that I hate saying *yes ma'am* all day, and *no sir!* all night."

—*PM*

STUDIES ON MERCURIAL DIURESIS
IV Ammonium Chloride: The Evaluation of Its Clinical and Chemical Effects

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During the course of investigations covering the various aspects of mercurial diuresis, comprising a study of over five hundred patients, the large amount of ammonium chloride which was used attracted considerable attention. This curiosity which was aroused, upon further investigation, unfolded the astounding fact, that over six hundred pounds of this drug were consumed in the hospital, during a twelve month period. Clinical records were studied and a research begun with a view of evaluating the clinical and chemical effects of this drug, and to determine, if possible, the benefical effects warranted such extensive employment.

The use of acid producing salts such as ammonium chloride has been in vogue for many years. They are employed for the purpose of promoting diuresis or to augment diuresis induced by a mercurial diuretic. The explanation for the mechanism of their action, has been principally that they create an abnormal acid reaction in the tissues, or, a fall in the alkali reserve of the blood, or, by increasing the chloride content of the blood, tissues and edema fluid. However, various investigators have not reported consistent results. In addition, it has been observed that the maximal acidifying effect, particularly by ammonium chloride was greatest on the second or third day of its administration, even when the drug was taken continuously. Its use is therefore, advised intermittently and, the injection of the mercurial diuretic timed for this maximum degree of drug induced acidosis. All investigators agree that the larger doses are necessary, usually, six to ten grams daily to produce the effects. Smaller doses are without benefit. Intolerance to these larger dosages is frequent despite the form in which the drug is given.

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Method of Study: Only patients with cardiac edema were used. These included the more common types of etiological heart disease with severe congestive failure but without evidence of kidney damage. The cardiac regime consisted of complete bed rest, a diet of 1683 calories, carbohydrate 215 grams, protein 55 grams, fat 67 grams, NaCl 0.985 grams with a total twenty-four hour fluid intake of 1600 cc., this including the water content of the foods. Digitalis was used on all patients with addition of morphine and phenobarbital for sedation. A base level of three days was usually sought for when possible, in determining the output. The results were evaluated by considering four groups of patients, studied first from the consideration of the amount of the diuresis, and secondly the variations in the chemical changes produced in the blood.

I. *The Diuretic Effect:* Group I includes those patients whose urinary output was influenced by the action of the cardiac regime alone, bedrest, digitalis, diet, restricted water and salt intake etc. Most patients in this group were then given ammonium chloride for three days after which the mercurial diuretic was added. Sixty-seven patients formed group one receiving neither ammonium chloride, nor an intravenous mercurial diuretic. The twenty-four hour urinary output averaged 834 cc., with a maximum of 2900 cc. and a minimum of 100 cc.

Group II comprises those patients who were on the cardiac regime and then ammonium chloride was added to evaluate the effect of the administration of this drug. The dosage was usually six grams daily and if no untoward effects occurred this was raised to nine grams daily. The third day urinary output volume was selected for the comparison in order to utilize the maximum acidifying action of ammonium chloride. This comprised thrity-nine patients. The average output was 840 cc. with a maximum of 2500 cc. and a minimum of 300 cc.

Group III totaled forty patients who were treated by the cardiac regime without ammonium chloride but who were given one cc. of the mercurial diuretic intravenously. The diuretic used thoughout this study was Esidrone, Ciba, the solium salt of a complex organic molecule containing a large amount of mercury in which the theophyllin radicle is also found.

The average output in this group was 3146 cc., with a maximum output of 5800 cc. and a minimum of 1000 cc.

Group IV comprised forty-five patients upon the cardiac regime, who were given one cc. of the mercurial diuretic intravenously at the end of three days medication with ammonium chloride. The average output in this group was 3380 cc. with a maximum of 6000 cc. and a minimum of 1100 cc.

CHART I
Urinary Output Measurements

	I Cardiac Regime	II NH_4CL Plus I	III Mercurial Plus I	IV NH_4CL Plus I & Mercurial
No. of Patients	67	39	40	45
Average Output	834cc	840cc	3146cc	3380cc
Maximum Output	2900cc	2500cc	5800cc	6000cc
Minimum Output	100cc	300cc	1000cc	1100cc

Chart I illustrates the accumulated evidence in the four groups. The results under the conditions of the experiments are strikingly similar and the variations are not sufficiently significant to warrant too much value being placed on the administration of ammonium chloride. For example, groups I and II vary in the average output a total of six cc., while the difference between groups three and four is only 244 cc., an amount which will produce very little difference in either the appearance of an edematous patient or in his weight. Consideration must be given also to the point that this apparent slight benefit may have been due to the action of the other factors in the cardiac regime, which influence may, of course, vary from day to day. Thus, not much change or benefit can be ascribed to the use of ammonium chloride either in promoting diuresis or enhancing the efficiency of the mercurial diuretic under the conditions of severe edematous patients as conducted by these experiments, where the measurement of the urinary output is the criterion for the effectiveness.

II. The Effects On The Body Chemistry

Method of Study: The effect on certain phases of the blood chemistry particularly with reference to the acid base balance was investigated in the following manner. Cardiac patients with severe edema, upon admittance to the hospital, were placed upon the cardiac regime previously described. The CO_2 combining power of the plasma, the urea nitrogen, the blood chlorides as sodium chloride, the inorganic phosphorus, the inorganic sulphates, and in a few instances the total blood phenols were quantitatively estimated. Standard accepted chemical methods were used in the quantitative chemical techniques. Then ammonium chloride was given by mouth in doses of six to nine grams daily for three days, at the end of which time, the quantitative estimations were repeated. Then the mercurial diuretic was administered intravenously. The blood chemistry estimations were again investigated after twenty-four hours corresponding to the maximum diuresis. In another group of patients, after the original determinations, the patients were given the intravenous diuretic without ammonium chloride having been administered. In this group the chemical studies were checked again after twenty-four hours and the maximum diuretic action. One must note, however, that in order to correctly registrate alterations in the blood chemistry, shorter periods could have been used such as hourly or two hour studies.

However, this arrangement of the material permits a comparison of the blood chemical studies into:

First Group I: the blood chemical findings in the cardiac patient with severe edema.

Second Group II: the cardiac patient with his chemical studies before and after ammonius chloride with the changes induced by this drug.

Third: The cardiac patient with chemical studies before and after ammonium chloride administration, plus the chemistry found after diuresis induced by the intravenous mercurial diuretics.

Fourth: The cardiac patient with severe edema whose blood chemistry was investigated before and after mercurial diuresis. Attention directed to the following tables illustrates the results of these studies.

Chart II shows the chemical values before and after the dosage of ammonium chloride. The summary at the bottom of the table shows almost equal distribution of increases and de-

CHART II
CHEMICAL VALUES
Before and After Ammonium Chloride

Case No.	Date	Dose	Urea N_2	CO_2	Cl	S	P
1.	5/14			48	340	3.0	3.0
	5/16	18gm		61.4	290	3.5	2.4
2.	5/14			41.7	394	3.6	3.1
	5/16	18gm		40	231	3.3	3.8
3.	5/14			46	380		3.1
	5/16	18gm		48.1	248		3.6
4.	5/14			51	396	2.5	4.0
	5/16	18gm		55.7	209	2.4	3.8
5.	5/23		13	67	396	0.8	3.0
	5/27	22gm	8.5	64	409	0.8	2.6
6.	5/23		21	57	429	0.7	2.4
	5/27	24gm	19	70	445	1.2	2.4
7.	5/26		16	65	409	1.3	2.6
	5/31	30gm	16	57	462	1.3	2.9
	6/1	36gm	16	58	412	1.2	3.0
8.	5/27		8.5	56	338	1.5	2.6
	6/2	36gm	23.0	59.8	412	1.2	3.6
9.	5/27		14	62	338	0.8	2.5
	6/2	36gm	25	50	462	1.0	3.3
10.	5/26		37	48	396	2.0	3.6
	6/2	42gm	42	44	481	1.1	3.4
11.	6/20		25	55.5	338	2.3	3.6
	6/24	25gm	27	38.4	419	0.7	4.3
12.	6/16		23.3	58.6	363	2.0	4.0
	6/20	25gm	15	54	334	1.8	3.1
13.	6/16		8	48.6	429	0.9	2.5
	6/18	18gm	13	48	425	2.0	3.8
Number of Increase			5	5	7	4	7
Number of Decrease			3	8	6	7	5
No change			1	0	0	1	1
Maximum Increase			14.5	13.4	85	1.1	1.8
Maximum Decrease			8.3	17.1	87	1.6	.9

creases in the chemical values in addition to practically the same significance in the maximum increases and decreases in the various chemicals investigated.

Chart III shows the values before and after ammonium chloride administration, and again after the use of the intravenous mercural diuretic. The summary at the base of the table again reveals almost equal variations in both increases and decreases, and in maximum and minimum fluctuations.

Chart IV reveals the evidence from the chemical investigations before and after the use of the mercurial diuretic as the sole variant in the experiment.

The comment to be made can be summarized in rather few sentences. The variations are not uniform, confirming somewhat related observations by investigators who dealt with the action of the mercurial diuretics alone. There is not sufficient evidence to support the statement that ammonium chloride greatly alters

CHART III
CHEMICAL VALUES
Mercurial Diuretic With Ammonium Chloride

Case No.	Date	Dose	Urea N_2	CO_2	Cl	S	P	Phenol
1.	5/14		17	51	396	2.5	4.0	
	5/16	18gm	21	61.4	290	3.8	2.4	
	5/17		18	48	313	3.4	3.0	
2.	5/20	10gm	33	38	373	1.68	2.8	
	5/21		13	58	423	1.6	2.0	
3.	5/26	18gm	8.5	64	475	1.0	2.1	
	5/27		10.0	66	460	0.8	3.4	
4.	5/31	12gm	21	44.7	412	1.2	1.8	
	6/1		23	48	402	0.6	3.1	
5.	5/14		20	46	380	1.4	3.1	
	5/16	18gm	13	48	248		3.6	
	5/17		8.5	57	231	1.7		
6.	5/14			41.7	394	2.6	3.6	
	5/16	18gm		40	231	3.3	3.8	
	5/17			47.5	280	3.7	4.4	
7.	5/14		26	48	340	3.0	3.0	
	5/16	18gm		61.4	290	3.5	2.4	
	5/17			48	313	3.4	3.0	
8.	5/26		16	65	409	1.3	2.6	
	5/31	30gm	16	57	462	1.3	2.9	
	6/1		16	58	412	1.2	3.0	
9.	5/23		13.0	67	396	0.8	3.0	
	5/27	22gm	8.5	64	409	0.8	2.6	
	5/28		13.0	50	396	0.8	4.6	
10.	5/23		21	57	429	0.7	2.4	
	5/27	24gm	19	70	445	1.2	2.4	
	5/28		17	68	379	1.0	6.6	
11.	6/16		23.3	58.6	363	2.0	4.0	
	6/20	25gm	14	52	455	1.5	3.7	
	6/21		23	51.3	342	1.8	7.2	
12.	6/24	18gm	16	66	495	1.6	2.9	
	6/25		20	47.6	419	0.5	4.6	
13.	6/20		25	55.5	338	2.3	3.6	
	6/24	25gm	27	38.4	419	1.7	4.3	2.9
	6/25		17	30	442	1.0	4.3	3.1
14.	6/27	18gm	25	38	343	2.8	4.6	1.1
	6/28		15	48	338	0.5	5.4	1.0
15.	7/11	18gm	18	38	338	2.1	3.6	0.5
	7/12		10	48	435	2.7	3.1	1.2
Number of Increase			4	8	4	6	11	2
Number of Decrease			7	6	10	8	3	1
No Change			2	1	1	1	1	0
Maximum Increase			4	20	104	1.1	4.2	.2
Maximum Decrease			20	25.5	114	2.3	1.0	.1

the chemical values in the blood studied by these experiments. Nor does it apparently affect the action of the mercurial diuretic on the blood chemistry as investigated under the described experiments.

SUMMARY AND CONCLUSIONS

1. Under the conditions of the above described experiments, the administration of ammonium chloride did not reveal any particular efficacy.

2. This applies to its action as a diuretic directly.

3. It also was not found to enhance particularly the action of the mercurial diuretic used.

CHART IV
CHEMICAL VALUES

Before and After Mercurial Diuretic

Case No.	Date	Urea N₂	CO_2	Cl	S	P	Phenol	Output
1.	5/20	11	64	376	2.0	1.8		500
	5/21	15	38	423	1.3	2.9		3800
2.	5/20	15	54	334	1.8	3.1		700
	5/21	20	63	482	1.2	2.8		1900
3.	5/24	16	55	380	2.0	4.0		500
	5/25	20	45	390	0.8	0.6		900
4.	5/31	15	58	462	1.3	2.0		300
	6/1	15	48	429	0.7	3.0		3000
5.	6/20	13	60.6	419	2.3	3.3		1800
	6/21	8	60	336	0.5	6.4		3100
6.	6/22	18	38.4	435	1.0	2.2		400
	6/23	8	43	338	1.8	4.4		1500
7.	6/22	15	47.6	429	2.0	2.9		400
	6/23	30	45	468	2.2	5.0		2200
8.	6/27	20	36	333	3.0	5.4	1.0	200
	6/28	16	49	409	4.8	4.9	1.6	2600
9.	7/11	18	38	343	1.9	3.2	1.1	1600
	7/12	18	40	340	2.7	3.6	1.7	3100
10.	7/6	15	45	482	1.6	3.8	1.0	1600
	7/9	14	38	496	1.4	3.8	1.1	5000
11.	7/25	13	48	425	2.0	3.8	1.2	700
	7/26	13	40	425	2.0	2.4	1.3	1400
12.	3/5	28	67.3	464	3.0	4.3	2.5	900
	3/6	20	47.5	511	0.9	4.0	2.5	4000
13.	3/12	13	59	445	2.3	3.3	2.7	800
	3/13	10	46	490	1.9	3.8	1.8	3000
14.	3/9	33	48.1	462	0.4	2.8	3.5	600
	3/10	28	42	458	1.1	3.4	4.6	4000
15.	3/14	21	54	429	1.5	3.3	4.1	300
	3/15	28	42	495	1.6	2.8	3.1	2000
16.	3/9	30	51	508	1.6	3.3	2.5	900
	3/10	32	54	416	1.3	4.0	5.0	3000
17.	3/18	17	62	429	2.0	3.1	3.5	600
	3/19	17	58	429	1.9	2.8	3.1	3500
Number of Increase		6	12	9	6	8	6	
Number of Decrease		7	5	6	10	8	3	
No change		4	0	2	1	1	1	
Maximum Increase		15	13	76	1.8	3.1	2.5	
Maximum Decrease		10	26	97	2.1	3.4	1	

4. No special significant alterations were found in the various chemical studies of the blood. Chloride variations showed somewhat wide ranges.

5. No tendency could be noted to the production of uremia.

6. No particular acidifying action was found upon the examination of the concentrations in the blood of those substance which indicate changes in the acid base balance.

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REST: PHYSICAL AND MENTAL

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Physicians as well as laymen commonly take rest for granted, like the air we breathe; there has been little disposition to study it scientifically, since only one laboratory has been devoted to the subject. However great have been the advances in other fields of present-day medicine, nothing has been discovered to replace Rest, which continues to be the most widely employed agent in medical practice.

Obviously, the clinical importance of rest must arise from some fundamental necessity of living matter. We know that active movements of the organism as well as the active maintenance of rigid or steady states require for their energy source the breakdown of more complex into simpler substances. In contrast with these energetic or destructive phases within the organism, there must occur corresponding restitutive processes — the rebuilding of potential energies. If action depends chiefly on the destruction of energy reserves, rest can be identified as the phase of reconstruction. Doubtless this is the characteristic, basis to the chemistry and physics of the human body, which accounts for the universal employment of rest in therapy.

During the past twenty years, investigations on rest have led to advances which, while recognized by physiologists, are not yet widely known and applied by practising physicians. That rest can vary in degree has been found by laboratory measurements, but it is also clearly indicated by clinical observations. The individual lying in bed may exhibit signs of activity

over his whole body or in one or more localities. The onlooker may note restless shifts of position or movements limited to a part such as one or more fingers or toes, perhaps with irregular breathing, or changes in facial expressions, including wrinkling, frowning, eye movements and rate of winking. The presence of activity, as indicated by these and various other clinical signs, evidently derives from failure of the skeletal muscles to relax. However, the signs of restlessness may not be apparent to the untrained observer, but restlessness and an emotional state may be detectable by appropriate instruments.

Contraction means the physiological shortening of muscle fibers, which is an active but reversible process. Relaxation is the lengthening of these fibers as they become inactive. If the state is maintained, we also call it relaxation; but if the muscle is habitually lazy, it would be more appropriate to call it "lax". It is well to bear in mind that all movements in the human organism derive from muscular contractions. Every act in which the individual engages is composed of contractions in one or another muscle or its parts, in series and combinations. Contractions of overt type, whether varying or steady, compose human conduct but also enter essentially into digestion, circulation, respiration and other vital functions. According to the character of the activity, the system chiefly involved may be the skeletal, the visceral or both. Participating in each of these functions are minute contractions demonstrable only with laboratory technic. If these contractions are slight but steady, the term *tonus* is applied. Contraction often can be recognized which is steady but too marked to be called tonus. For such contraction, the adjective *supertonic* or *hypertonic* seems appropriate.

It has been traditional in physiological textbooks to affirm that all muscle, when in a healthy state, exhibits the state of slight persistent contraction known as tonus. We can now state that this teaching, although it was universally accepted for decades, has not been confirmed. Skeletal muscles in healthy animals (dog, frog) as well as in man at rest may show a state of complete relaxation, as tested by the only precise means we have ever had — measurements of contraction-potentials.

Hypertonia can be recognized as more or less generalized or as more or less localized in one or more systems. When generalized in the skeletal musculature, the hypertonia is characteristically persistent in some individuals and disorders, while intermittent in others. Persistent or unremitting hypertonia occurs, we find, in marked hyperthyroidism, in a considerable percentage of cases of "essential hypertension" and in numerous nervous or tense individuals not afflicted with the above mentioned disorders. Intermittent hypertonia of the skeletal musculature is far the more common, perhaps characterizing most or all of the individuals who come to the doctor's office complaining of nervous or digestive disorders.

In irritable colon, mucous colitis, common forms of constipation and non-infectious diarrhea, the hypertonia would seem to be persistent all day long (and perhaps for the night) in more or less of the entire gastrointestinal musculature. There is evidence, also, that it is persistent in this system in many patients where skeletal musculature hypertonia is only intermittent. The spastic esophagus, stomach and colon are among the most common forms of abnormal physiology in the average urbanite today.

In "essential hypertension", the hypertonia commonly becomes persistent in the musculature of the smaller arteries and arterioles in later stages; but in earlier stages it is probably most often intermittent. In these earlier stages, according to experimental studies, the intermittent increased blood pressure often coincides in point of time with increase of skeletal muscle tonicity; while, when the individual becomes more relaxed, the pressure may return to normal limits.

Relaxation, whether *general* (which includes the entire body lying down) or *local* (limited to a particular muscle group or to a part) is *complete* if it proceeds to the zero point of contraction (tonus) for the part or parts involved and *incomplete* if it falls short of this. *Differential relaxation* is the absence of an undue degree of contraction in the muscles employed during an act, while other muscles not so needed, remain flaccid. Clinical relaxation may as a rule be called "systematic", "habitual" or "cultivated" and the meaning of these names will be obvious, but they will not apply in many

cases where relaxation is briefly used to aid in overcoming some acute or transitory disturbance.

Physicians not acquainted with the field commonly speak of "mental relaxation" as opposed to "physical relaxation." Laboratory investigations have shown that no such opposition exists. During any period of mental activity, ipso facto, there goes on certain physical activity, but, contrary to the beliefs which have been traditional for centuries, such physical or physiological activity is by no means limited to the brain. The doctor can get a clearer idea of the present conception if he will recall, for example, that the act of flexing or extending a part, say the right arm, involves both brain and skeletal muscles. Quite in the same way and to the same extent, what is commonly called "mental activity" includes brain plus muscle action in inextricably close combination. Conduct always involves complicated series and combinations of muscle plus brain activities; thinking and reflection are found to consist of minute activities in the muscular plus the nervous systems.

For this reason, muscular rest, if complete, necessarily includes mental rest. In lay vernacular, "the power of mind over matter" is a common expression. On the contrary, the "power of matter over mind" would more properly express the present medical viewpoint; but the terms "mind" and "matter" are inexact and are not suitable for medical contexts.

Every instance of transient imagination, reflection and other mental activity, when examined under appropriate conditions of laboratory investigation, has been found to involve specific acts in one or another group or groups of muscles. Inaction in the group or groups involved brought with it the absence of the specific mental act studied. It has seemed safe to conclude that muscular relaxation, if sufficiently advanced in certain localities, brings with it the diminution of mental activity, whether imaginative or reflective or emotional. Accordingly, true muscular rest can relieve the "mind." It is believed that this principle, if understood and effectively applied, can be of fundamental import not alone in general medicine but throughout psychiatry as well, in prevention no less than in "cure."

The "rest-cure" of Wier-Mitchell has gradually fallen into the discard among most physicians because of its failure to achieve lasting effects in conditions selected as appropriate for such treatment. Even temporary beneficial results often seemed wanting, for the restless patient confined for weeks in bed not seldom became increasingly restless and emotional. Evidently, he failed to relax for the very good reason that he did not know how. Wier-Mitchell himself scarcely stressed the matter of physiological relaxation. Indeed, in its present day sense, he was not familiar with it at all (contrary to current views). He did not even employ the word "relax," very often, for he was most interested in diet. This is shown by the title of his book which introduced the so-called "rest-cure" to most physicians. "Fat and Blood and How To Make Them." His patient, lying abed for weeks or months, was fed large quantities of milk, cream, eggs and other nourishing foods. To the consequences of such nourishment, rather than to relaxation, he ascribed the improvement which appeared in many of his patients. This view of Wier-Mitchell has failed to withstand the test of time. Individuals can be seen in any large clinic today who are well nourished, even over-nourished, but who are nevertheless highly neurotic.

Nor was this his only oversight regarding nutrition. Wier-Mitchell, although an excellent physiologist as well as almost the outstanding physician of the United States in his time, evidently was not fully aware of one point which we have learned since then; namely, that underweight in patients not suffering from wasting disorders is commonly due to habitual neuromuscular hypertension. It is common knowledge that muscular contraction requires a food source for the energies consumed; accordingly, it is but to be expected that if such contraction is habitually excessive, as occurs in many hypertense and neurotic patients, it will be difficult for them to put on weight. To be sure, if they are put to bed for weeks, as in a sanitorium, they can be "fattened up" in most instances; but upon their return to their work and their normal affairs, the fat tends gradually to fall off again, leaving them in their pre-sanitorium condition, so far as weight is concerned; excepting those instances where the passage of time occur-

ring in the forties or fifties, favors the development and retention of greater weight. On the other hand, I can report from clinical experience that the average patient, underweight or not, evidently changes in weight after a number of months of training to relax. At the stage when he shows signs of becoming more quiet and relaxed habitually, he commonly gains weight. This gain, effected while he continues at his daily duties, proves lasting, if he continues to maintain differential relaxation. In my opinion the relaxing treatment of underweight conditions is not alone more effective than the method of Wier-Mitchell but also would seem a more rational therapy than the use of insulin in patients whose carbohydrate metabolism is normal.

For weight increase, the habitual relaxation to be cultivated when lying down should be as nearly complete as possible in the skeletal and visceral musculature. Various differences exist between such complete rest, which can be cultivated, and the more common forms of incomplete rest, called ordinary rest. Some of these differences are as follows:

1. The metabolic rate is lower in the same individual under otherwise identical conditions, if the skeletal system is approximately at zero tension.

2. The knee-jerk (as well as any other reflex) is diminished or altogether absent during the time when relaxation is approximately complete.

3. The organism is quieter as a whole and in its parts.

4. Mental activity, including emotional states, dwindles or disappears with advancing general relaxation.

During a period of extreme muscular relaxation lying down, as contrasted with ordinary rest in the same posture, there is, then, some saving of caloric energy; but in itself, this saving obviously is not sufficient to account for certain marked differences in the consequences of incomplete rest as compared with intensive relaxation. For example, it is common experience that lying abed with insomnia fails to effect the same restoration against fatigue, exhaustion and disease as is seen after sound sleep; subjectively, the individual who has failed to sleep most of the night may feel more tired, according to his observation, than when he retired. The difference in caloric outgo, as is well known, is inconsequential in "restless rest" compared with restful sleep. Nor is the explanation to be found in some mysterious property of sleep which restores; for the individual who becomes generally relaxed in his skeletal musculature lying down, say for an hour, subsequently reports that he is well rested, even if he has not slept. Evidently, it is the final stages of muscular relaxation which count most, subjectively at least, although in passing through these final stages there is not in this itself a saving of any great expenditure of caloric energy. Yet on evidence which I have recounted elsewhere, it is precisely the relaxation of *residual tension* that is accompanied by the most marked fall of systolic and diastolic blood pressure, as well as by a relaxation of viscera, including the gastrointestinal tract. If the saving of caloric energy is not the source in which we should seek the explanation for these and other consequences of relaxation of residual tension, we may examine other possible sources. In this connection we recall that mental activities including emotional states evidently depend for their occurrence upon the presence of residual and other forms of slight contractions in the skeletal musculature, particularly including the muscles of the ocular and speech apparatus. As relaxation of these parts advances, it is found clinically that rest apparently becomes most effective. "Mental rest" accompanies "physical rest" according to this physiological procedure; and this may be one reason why general advance relaxation proves restorative.

Where it is desired to cultivate rest in present-day medical and surgical practice, the methods of cultivated relaxation are available. They can be employed in conjunction with sedatives, diet or psychotherapy in the effort to induce mental and physical quietude. But while such combination is possible, it is not always desirable. If the physician and the patient are willing to devote their time and attention to personal training for the benefit of the results to be secured, the use of progressive relaxation alone is recommended.

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The story is being told of a young father who started to tell his 4-year-old son the tale of Robinson Crusoe.

"And one day he saw strange footprints in the sand," the father recited. "He was puzzled. For they weren't his footprints. He hadn't seen anybody else on the island. And this island was far, far away from all other lands. And he said to himself: 'Whose footprints could these be?' "

The youngster answered: "I know. Eleanor Roosevelt's."

—*Leonard Lyons.*

A PRELIMINARY REPORT ON THE ATTEMPT TO CONTROL TUBERCULOSIS AT THE CHICAGO STATE HOSPITAL

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AND

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A program has been instituted at the Chicago State Hospital for the possibility of alleviating the tuberculosis problem of the institution. This necessitated a complete change in the method of diagnosing the tubercular patient, the isolation of the tubercular patient, and the treatment of the patient.

The medical staff long recognized that there were many cases of active tuberculosis on the general wards, but due to improper diagnosis, lack of a tubercular ward, and incomplete follow-thru of the many patients after diagnosis, plus faulty transmission of reports or delay of reports, active cases remained on general wards that were over-crowded, and succeeded in trans mitting their infection to others. The medical staff had also recognized that when a patient was sent to the tubercular section, that the case was usually so far advanced that it was a terminal case, and not suitable for either medical or surgical therapy.

It was to correct the above problems, and to safe-guard the personnel of the institution that the present tubercular program was instituted and put into effect. To the present date, the portion of the program that deals with the diagnosis and isolation of the tubercular patient, except where unexpected change in personnel has occurred, the procedure has been instituted as a routine, and is functioning well. Equipment for intelligent active treatment has been purchased, and since the first of the year, the authors have made slow but sure progress in the active treatment.

A superficial survey some two years ago indicated that there were three sources for tuberculosis at the institution. There were active unknown cases of tuberculosis on the general wards, especially on the overcrowded wards, newly admitted cases with tuberculosis was

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definitely not a rarity, and a certain percentage of patients regardless of their present physical condition or living quarters would break down. A study of the records of the last two years will show that this superficial survey was substantially correct.

Because of the facilities of the institution and the type of patients dealt with, the authors decided to rely upon fluoroscopy examination of the chest and confirmation with x-ray films for the diagnosis of tuberculosis. Sputums, even in far advanced cases with cavitation, in most instances could not be obtained, that is, satisfactory sputums. Perhaps our experiences in trying to obtain this material should be recorded if only for a negative reaction. An attempt to obtain routine sputums was a failure except from a few cooperative patients. When an attendant or nurse was assigned to a specific case to obtain a specimen, it was not worth staining or concentrating because it was slavia, not the sputum desired. The same situation existed when the authors attempted to obtain the material themselves.

In order to gain full cooperation of the personnel of the institution, an attempt was made to make the institution tubercular conscious. All individuals that suspected a patient of losing ground physically, were encouraged to send such patients to the ex-ray room for examination of the chest. When a positive case was found by such method, usually one of the personnel attached to the tubercular work would advise the sender of the patient, and encourage him or her to be on the outlook for other such patients. It is very encouraging to know that this method was successful in making the general personnel tubercular conscious. The medical staff is given written reports of the pathological findings, they are shown the x-ray plates of positive cases, and are encouraged to seek all possible foci. Printed forms, self explanatory, in duplicate and triplicate are prepared for their convenience and cooperation.

The present program is as follows:

(1) All patients admitted to the institution received, in addition to their general physical examination, a fluoroscopic examination. If the chest is found to be fluoroscopic positive or suspicious, an x-ray is taken.

(2) All patients admitted with a tubercular process which can respond to pneumothorax are recorded and treated. Those having far advanced tuberculosis processes are segregated on a separate ward and receive special care and consideration for the other methods of treatment.

(3) All of the patients in the institution are fluoroscoped when they

a. show a weight loss of more than five pounds for two successive months;

b. Have an unexplained temperature elevation;

c. have a chronic cough;

d. if they complain of night sweats.

(4) When a case of tuberculosis is found on a general ward, all the patients on that ward are fluoroscoped as contacts.

(5) No tubercular patient is permitted on a general ward until his x-ray plate is tubercular negative and a temperature record shows him or her to be afebrile. Attempts to obtain sputums on these patients are tried, but unless the patient is fairly cooperative, satisfactory results are not obtained. For the reason that sputum obtained from un-cooperative patients usually consist of slavia and, therefore, are not reliable indications, we have adhered to the principle of keeping the patient on the inactive side of the tubercular ward until provisions will be made for a chronic inactive ward. In previous years, patients that were transferred from the tubercular ward to a general ward usually returned shortly after with a very obvious active tuberculosis.

In order to carry out provision number three of the above paragraph the following program was created:

1. Monthly weighing of patients are done routinely.
2. Weights are recorded on the weight record card kept on the wards.
3. The charge attendant prepares a list of all patients having a weight loss of 5 pounds or more for two successive months.
4. The supervisor receives copies from the wards, one of which is given to the ward physician and the other to the consultant in charge of tuberculosis.

FORM NO. 1
CHICAGO STATE HOSPITAL

Ward D1 Female Dr. Greenberg
Patients who have lost 5 lbs. within the last 2 months

Patient's Name	Card No.	Weights Date	Date

FORM NO. 2
CHICAGO STATE HOSPITAL
Chest Fuoroscopic Examination

Date ..... WARD.....

Please make duplicate copy and send both copies with patients to X-ray department.

Patients with X mark are to be returned to X-ray department for chest plate.

Call X-ray department for appointment for chest plates before taking patients to X-ray room.

Make certain that the nurse or attendant that accompany the patients can identify the patients.

Date of appointment at X-ray room General Hospital.
A.M.
Date ..... Time ..... P.M.

.....
Physician in charge of ward.

Patient's Name	Patient's Number	Weight	X	Remarks

.....
Physician

FORM NO. 3
CHICAGO STATE HOSPITAL
Fluoroscopic Chest Examination

Three Reports are to be made:
Original Copy - To Record Room
Copy No. 2 - - To ward Physician
Copy No. 3 - - To Examining Physician

.....
Ward Physician

Patient's Name.....No.....Ward.....Date.....

1 ☐ Negative Heart and Lungs
2 ☐ Suspicious Lungs, to have X-Ray Film of Chest
3 ☐ To be returned for Floroscopic Chest Examination
A ☐ Untidy B ☐ Uncooperative
4 ☐ Heart Enlarged
5 ☐ Aorta Aneurism
6 ☐ Positive for Pulmonary Tuberculosis
A ☐ To have X-Ray Film of Chest
B ☐ To be Transferred to Tubercular Ward

.....M.D.
Examining Physician

FORM NO 4
CHICAGO STATE HOSPITAL
X-Ray

Four Copies to be made:
No. 1 - To Record Office
Copy No. 2 - - To ward Physician
No. 3 - X-Ray Files

No. 4 - To Physician in Charge of Dept.

.....
Ward Physician

Patient's Name.....No.....Ward....Date....
X-Ray of .....
.....
.....
Findings .....
.....M.D.
Physician

5. All of the patients considered suspicious are fluoroscoped, and if the fluoroscopy is suspicious an x-ray picture is taken.

All employees who have been in contact with a tubercular patient, or who are employed on a tubercular ward are routinely x-rayed.

When a case of tuberculosis is found on a ward, all other patients on that ward are considered as contacts, and the entire ward is fluoroscoped. Active cases of tuberculosis are immediately sent to the tubercular ward, and in many cases, directly from the x-ray room.

When an x-ray picture is taken, it is studied by the physician in charge of tuberculosis, by the chest consultant, and the x-ray consultant; three opinions offer a greater opportunity for the proper diagnosis.

For the purpose of standardizing our routine, simplifying records, and faliciating treatment at the present time we have six printed forms, and as soon as additional needed equipment is installed on the tubercular wards, two more forms will be printed, a routine three month examination, and an active treatment form. For No. 1, there is a sheet on which patients who have lost 5 pounds or more within the last two months are recorded. From No. 2 is for appointments for chest fluoroscopic examinations and is self explanatory. (see form). Form No. 3 is the fluoroscopic chest examination report and the reports are made out in triplicate, one copy to the record room, one to the ward physician, and one to the examining tubercular physician. Form No. 4 is an x-ray plate report and this is made out in quadruplate, one copy goes to the record office, one to the ward physician, one is filed with the x-ray, and one goes to the tubercular physician. Forms No. 5 and 6 are for sputums and temperature and are self explanatory. (see copy of forms). With the above routine, it is unlikely for a tuberculosis patient not to receive adequate attention.

In all cases where there is doubt as to the diagnosis, every effort is made by a specially trained nurse to obtain sputum findings and temperature records. Three sputum examinations on separate days or attempts to obtain such is considered as a sputum examination. A temperature reading B.I.D. is taken for fourteen successive days. One copy of the sputum and temperature result

FORM NO. 5
CHICAGO STATE HOSPITAL

☐ Sputum Record for Tubercular Patients.

☐ Sputum Record for Suspect Tubercular Patients.

Two Reports are to be made:
Original Copy - - To Record Room
Copy to be Filed on Tubercular Ward

To be completed for all tubercular patients or suspect tubercular patients every three months. Three sputum examinations on separate days or attempts to obtain such is to be considered as sputum examinations.

Patient's Name .....
No. .....Ward..... .....

No.	Date	Patient Cooperative or Un-cooperative	Was Sputum Obtained? Yes	No	Date Sputum to Laboratory	Positive	Negative

.....M.D. .....R.N.

FORM NO 6
CHICAGO STATE HOSPITAL

☐ Temperature Record for Tubercular Patients.
☐ Temperature Record for Suspect Tubercular Patients.

Two Reports are to be made:
Original Copy - - To Record Room
Copy to be Filed on Tubercular

To be completed for all tubercular patients or suspect tuber- 14 successive days is to be considered a temperature record. cular patients every three months. B. I. D. temperatures for

Patient's Name .....
..... No. ..... Ward .....

Date	8:00 A.M. Temperature	2:00 P.M. Temperature	Taken
Date	8:00 A.M. Temperature	2:00 P.M. Temperature	Taken

.....M.D.
.....R.N.

is sent to the record office and one remains on the tubercular ward.

A daily log book is kept in which fluoroscopy chest examinations and x-rays for chest plates are scheduled in advance on patients that are suspects. In this way we do not lose sight of any of the cases that require future examinations.

From January the second 1942 to March sixth, 1942 when the department was functioning well and the personnel was at its full quota, the following work was performed. Five hundred and fifty chest examinations were made, of which number one hundred and fifteen were weight losses, four hundred and thirty-five were contacts and new patients. Twenty-nine patients were transferred to the tubercular ward and five were transferred from the tubercular ward. Twenty-nine permits for collapse therapy and phrenic nerve surgery were sent, six aspirations, six pneumothorax treatments were given and eight phrenicotomies were done. Twenty-nine sputums were recorded.

At the present time, because of frequent changes and loss in our personnel we are somewhat limited in carrying out our active treatment. A difficult hurdle at the present time is the sound recommendation by the State Health Department, that the attendant or nurse must be thirty-five years of age or more, mantou positive, and x-ray negative.

The tubercular wards are divided into an active and inactive wing. Each wing is again divided into two parts. One section is for the tidy and cooperative patients and the other for the untidy and uncooperative patients. When the personnel permits, the active cases are fed in bed from an electrically heated food conveyor. The tubercular patients are given in-between meals and again after supper. This usually consists of eggnogs and malted milk mixed with vitamins. The patients are limited in their activities and

confined to their beds mornings and afternoons. All dishes are sterilized at 180 degrees for two minutes, using a special type of dish washer.

With the above routine, we at the Chicago State Hospital believe that we have removed contact tuberculosis from the general wards.

When the program was started there were seventy-five known cases of pulmonary tuberculosis confined to sections of the men and women's infirmary. Today there are two hundred and fifty cases of known tuberculosis, and in all likelihood with this intensive work, it will reach about ten percent of the population which at the present time is four thousand seven hundred and seventy two.

The records for the past two years are as follows:

1. 4012 fluoroscopies.
2. 977 x-ray films
3. An increase from seventy five to two hundred and fifty known tubercular patients — one hundred sixteen females and one hundred thirty four males.
4. 48 far advanced males, 40 moderately advanced, 3 insipient, 3 fibrotic and the remainder minimal. There are twenty seven far advanced females, 39 moderately advanced, 10 fibrotic, 3 pleural effusions, 1 insipient, and the remainder minimals. Our criteria for such diagnosis was taken from the 1938 classification of the National Tuberculosis Association which is as follows.

Minimal-Slight lesions without demonstrable excavation confined to a small part of one or both lungs. The total extent of the lesions, regardless of distribution, shall not exceed the equivalent of the volume of lung tissue which lies above the second chodrosternal junction and the spine of the fourth body of the fifth thoracic vertebra on one side.

Moderately Advanced. One or both lungs may be involved, but the total extent of the lesions shall not exceed the following limits:

a—Slight disseminated lesions which may extend through not more than the volume of one lung, or the equivalent of this in both lungs.

b—Dense and confluent lesions which may extend through not more than the equivalent of one-third the volume of one lung.

c—Any gradation within the above limits.

d—Total diameter of cavities, if present, estimated not to exceed 4 cm.

Far Advanced. Lesions more extensive than Moderately Advanced.

For the past two years the tubercular department of the institution has treated one hundred and sixty three male patients on the tubercular ward, of these three have been paroled home, five returned to general wards after complete observation which included repeated x-ray plates, temperature charts and sputum examinations. One was deported to another state, two were sent to the Cook County Tubercular Hospital as tuberculars but without psychosis, and there were 16 deaths. On the female ward we have treated during the same period of time 158 patients. Four were paroled home as improved and 5 were returned to the general wards. There have been 32 deaths on the female tubercular ward during this period.

Surveying the source of our tubercular patients from the general ward we observe that our patients are usually found in groups of other tubercular patients and this indicates contact cases. However, this is not entirely true as we have recently had a case who was fluoroscoped 6 months prior to her admission to the tubercular ward. During a routine fluoroscopy examination she was found to be a typical miliary tuberculosis of the chest and lungs, and expired three weeks after her transfer to the tubercular ward. This indicates the necessity for routine chest examination by either x-ray or fluoroscope as no signs of chest pathology were found by physical means. It is not unusual to be unable to find pathological signs in the examination of a chest by physical means.

From our records we found 23 positive male chest cases on the DW building, 52 in the CW building, 2 on the Farm ward, and 25 on new admissions to the institution of which only 8 came to us with a history of tuberculosis. Reviewing our source of female tubercular patients, we found 36 on the Horner building, 33 in the CW buildings, and 12 new admissions of which only 3 were known tuberculars. From the acute female hospital ward we received 9 tubercular cases.

In reviewing the type of mental patients that we have on the tubercular ward it is of interest to note that we have 95 cases of Dementia

Praecox of which 65 are of the Hebephrenic type, 11 catatonic, 8 paranoid, 1 simple and 8 of undetermined types. There were only 2 manic depressive cases, 4 traumatic psychosis, 10 cerebral arteriosclerosis, 8 mental defectives, 1 involutional psychosis, and 5 general paretics. The rest of the patients were of various mental classifications but not of significance.

On the female ward according to the mental classification there are 63 cases of Dementia Praecox of which 44 are Hebephrenic, 8 catatonic, 6 paranoids, 3 simples and two of undetermined types, 3 manics depressive psychosis, 4 involutional, 7 mental defectives, 4 alcoholics, 14 cerebral arteriosclerosis, 5 somatic diseases, 3 general paretics, and 3 epileptics.

The ages of our patients range from the youngest on the female ward of 24 years old to the oldest 89 years of age. This 89 year old woman was 67 on admission to the institution. On the male ward our youngest is 21 years old and the oldest 78 years of age. We find that age is not a barrier to tuberculosis and that is most commonly found in a group age of between 35 and 55 years on our wards.

In reviewing the occupations assigned to the patients that are on our tubercular ward we find that they were formerly assigned as patient workers in all of the branches of our industries such as the commissary, laundry, O.T. center, employees dining room and ward workers.

At the present time we are completing four hundred and fifty fluoroscopic chest examinations per month. By July 1943, we hope to be able to report on our results of the active surgical treatment of our tubercular cases.

SUMMARY

1—The institution has been made tubercular conscious.

2—A program has been established at the Chicago State Hospital by which it is believed that cases of tuberculosis will be practically eliminated from the general wards.

3—There is a systematic follow-up on all positive or suspicious tubercular cases.

4—Self explanatory forms have been introduced in order to facilitate the records.

5—In the final report we shall state our experiences and results with active therapy of tubercular cases at the Chicago State Hospital.

DISCUSSION

Milton Goldberg, M. D., Chicago: I just want to raise a question or rather make a suggestion for some further elaboration of the excellent paper and the work which Dr. Greenberg and Dr. Edlin have done.

I have always been interested in the relationships on a diathesis basis between tuberculosis and some of our so-called functional psychoses and particularly I'd like to inquire whether he has noticed any relationship, for instance, between tuberculosis and schizophrenic psychosis.

My own experience is that schizophrenic phycosis is much more likely to come down with tuberculosis than your psychophrenic. It is not merely a matter of duration of exposure, because some of your patients have been in contact with chronic schizophrenics and still don't come down with tuberculosis.

Dr. D. Louis Steinberg, Elgin: I would like to say a few words about the administrative side of this particular problem. Dr. Greenberg and Dr. Edlin touched upon it.

As far as I know, in the Department of Public Welfare there is really only one institution that has a unit that is devoted entirely to the care and isolation of tuberculosis patients. Until such time as every institution has a completely isolated unit. the problem of control of tuberculosis in a psychiatric institution is fraught with considerable danger to the other patients.

I have seen institutions where the patient is in so-called isolation — say in an infirmary cottage with a day room barrier but I think anyone familiar with public health will disapprove any such isolation.

That is only one point of contact. The other is in the preparation of food, of linens for these patients, and so on. There is very little care taken in the isolation and sterilization of this contaminated material.

I think that unless the Department can take cognizance of that particular fact, we are going to have problems in controlling the spread of tuberculosis.

One other important factor: I know that none of the institutions are equipped sufficiently to handle all their tuberculosis problems on one ward. Dr. Greenberg mentioned that. So it becomes necessary to return some of these so-called arrested patients to the general population and before you know it they have become a source of infection — a much more dangerous source than the one that Dr. Lichtenstein mentioned.

Even in routine check-ups of three months, considerable damage may have already been done in the interval. A unit for arrested patients must be established and patients must be re-examined and not returned to the general population until they are absolutely free of any possible source of infection or until their lesion is arrested and they are no longer a source of danger. Continued attention and care must be given this problem otherwise it becomes uncontrollable.

Dr. Ellenore de T. Murphy, (Lincoln): In case patients are of such low grade mentality that they do not understand, are not cooperative, and when no sputum can be obtained from such cases, and you have clinical evidence, physical findings, x-ray, plus accompanying signs and symptoms of pulmonary tuberculosis, why must a patient be kept on wards until it, or they become terminal cases, and die shortly after admittance to a tuberculosis ward, simply because NO sputum was obtainable? What can be done to remedy this situation, and stop such practice? Besides the patient not getting proper care for the condition, it exposes other patients, attendants, nurses et al to the disease.

MEDIASTINITIS SECONDARY TO CERVICAL PATHOLOGY

3 Case Reports

GLENN J. GREENWOOD, M.D.

EVANSTON

In a consideration of mediastinal infections secondary to cervical lesions it is well to recall that the mid-sternal structures, for the most part, in their development descend through the neck region and, in so doing, fascia and potential fascial spaces of one region tend to become continuous with those of the other.[1] Thus dissecting suppurative lesions are more or less accurately directed from one locale to the other, though, as New[2] remarks, pus is not an inert fluid but rather possesses potent digestive enzymatic action capable of freeing itself from fascial confines.

Bichat[3] in 1801, Pearse[17] states, first undertook to study the neck's compartments. Burns[4] in 1811 gave them some consideration. But it was almost three quarters of a century later that a group of German investigators, Henke,[5] Konig and Riedel,[6] Soltmann,[7] Poulsen,[8] and Schmitt[9] presented the basic data upon cervical fascia and its influence upon the dependent spread of infection through its potential fascial spaces. Mosher,[10] Furstenberg,[11] and Iglauer[12] are laryngologists who have done their part in helping to clarify anatomical intricacies in these regions. The anatomical studies of Barlow,[13] Coller and Yglesias,[14] Furstenberg and Yglesias,[15] and Weintraub[16] have served to further enlighten us upon the inter-relationship of the cervical and mid-thoracic connective tissue structures.

The neck is made up of three big divisions. They are: a) the large posterior vertebral division; b) the small anterior visceral division, and c) the two flanking vascular-compartment divisions. The neck musculature may be divided into three layers. These are: the superficial trapezius and sternocleidomastoid layer, the antero-medial supra-and infrahyoid muscle layer, and the posterior vertebral-muscle-group layer. The fascia covering and connecting these structures may also be correspondingly divided into three layers. *First*, the deep cervical fascia which arises posteriorly from the ligamentum nuchae region, passes antero-laterally, splitting about the trapezius and sternocleidomastoid muscle, fusing with its fellow of the opposite side in the midline anteriorly to form a completely enveloping fascia of the neck. *Secondly*, below the hyoid bone this parent deep cervical fascia divides into two layers: the superficial splitting about the infrahyoid muscles to form its fascial compartment. It is limited laterally by the omohyoid's attachment to the scapula, and inferiorly by its attachment to the posterior surface of the sternum and clavicle. (Cervical suppurative lesions arising anterior to this muscle compartment are, by its inferior attachment, prevented from entering the mediastinum.) *Thirdly*, the deep layer of the deep cervical fascia below the hyoid bone is carried down upon the visceral compartment to form the visceral fascia. This fascia covers the cervical viscera, the thyroid and parathyroid glands, the trachea and the esophagus. That portion of this fascia laying in front of the trachea is called the pretracheal fascia. Continuing its course laterally from the visceral compartment, this fascia covers (and forms) the vascular compartment in the neck, and the aorta below. Where the aorta crosses the left side of the trachea, this fascia continues downward, enclosing the descending aorta. From the vascular compartment this fascia, with its pedicles, attaches to the transverse processes of the vertebrae to enclose the space anterior to the vertebral bodies, and by this enclosure forms the post-visceral space.

The fascia between the cervical visceral and vascular compartments is known as the alar

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From the Departments of Anatomy and Otolaryngology of Northwestern University Medical School and the Passavent and Evanston Hospitals.

fascia. It carries neurovascular structures from one compartment to the other. It derives its importance to us from the fact that we approach the postvisceral space through it, when doing a cervical mediastinotomy.

The visceral compartment extends from the basal skull region into the mediastinum and serves as a prominent pathway for extension of cervical infections into the midthoracic region. It enters into the formation of the pretracheal and postvisceral spaces. Between the pretracheal fascia behind and the deep layer of the infrahyoid muscle fascia in front Furstenberg and Yglesias[15] have described two secondary fascial offshoots arising from this pretracheal tissue. The first of these descend from the region below the thyroid gland to attach to the under surface of the sternum. It courses laterally, ending in the sheath of the internal mammary artery. This layer may also act as an important barrier to the descent of pus into the mediastinum. Immediately beneath this lays the thymic space which is bounded posteriorly by another fascia plane which encloses the innominate veins and the superior vena cava, ending below in the mediastinal pleura.

The pretracheal space with its lymphatic structure lays within the confines of the visceral compartment. It is bounded by the pretracheal fascia in front and the trachea behind. It may become involved by infection secondary to a thyroid operation or a tracheotomy. This, however, is rare. In performing a tracheotomy it is well to recall that after incising through the fascia enclosing the posterior surface of the infrahyoid muscle compartment, we enter a space continuous with the superior mediastinum. Here we may meet with an anamolous great vessel structure projecting upward, from the superior mediastinum below.

The vascular compartment, incorporating the carotid artery, internal jugular vein and vagus nerve, contains lymph nodes in its areolar connective tissue structure. Its relationship by way of the internal jugular vein to the lateral pharyngeal space makes this vascular compartment a highway to the mediastinum, for any infection involving this space. Such an infection may come from contaminated needles puncturing this space during a tonsil or dental operation, or from a peritonsillar, pharyngeal, parotid or submaxillary abscess invading this space. As Furstenberg[11] states, its fibrous connective tissue walls are thick and elastic, making it capable of much distension without rupture, which probably accounts for the ravaging effects of infection upon its contents.

Returning to the postvisceral space, we have seen its extent and note that the prevertebral fascia limits it posteriorly and the retrovisceral fascia bounds it anteriorly, while the vascular fascia with its pedicles bound it laterally. This potential space may be divided into three distinct portions: a) A superior or retropharyngeal portion extending from the basal skull region down to the cricoid level; b) a middle or cervico-thoracic portion which extends from the cricoid level down through the superior mediastinum to its junction with the posterior part of the inferior mediastinum, opposite the bifurcation of the trachea. Here the dense fascia about the trachea, bronchi, aorta and pericardium partly obliterates this space, and as Lambert and Berry[1] point out, granulating suppurative processes finding their descent barred, infiltrate through the broad ligaments into the lung substance by way of the bronchi and posteriorly along the endothoracic fascia producing roentgenographic findings interpretive of pathology in this region. The third portion of this space extends from fourth-fifth thoracic vertebral articulation to the diaphragm. It is not, as a rule, involved in cervical pathology's descent into the mediastinum. Suppurative processes here are drained from a posterior approach — dorsal mediastinotomy.

This postvisceral space is filled with an extensive areolar net-work which in its upper portion is richly supplied with lymphatic structure into which we at least get partial drainage from the nasal cavities, nasopharynx, faucial tonsils and middle ear. Weintraub[16] and Iglauer[12] have demonstrated important subdivisions of this area, pathologically involved.

It has long been noted that a retropharyngeal abscess tends to remain localized for a relatively long time before rupturing, thence extending into this portion of the mediastinum. Pearse[17] states that these abscesses tend to remain localized. The reason for this may be as shown by Weintraub[16] and demonstrated by Scheldrup[18] that the retropharyngeal portion of this space is

divided into an anterior and a posterior compartment by a perpendicular sheath which swings forward at the cricoid level, attaching to the posterior surface of this cartilage. It thereby prevents gravitation of this pus so confined inferiorly, but it may, as Scheldrup[18] states, produce a "capping of the aditus of the larynx." These cases lend themselves to incision and drainage by direct hypopharyngoscopy. On the other hand, a ruptured Potts or osteomylitic abscess may gravitate directly into the superior mediastinum.

Cervical lesions extending directly into the mediastinum by way of the lymphatics enter more often through the right superior mediastinum, the lymphatic structure here being much greater. Acute mediastinal lymph adenitis, as Ochsner and Debakey[19] state, usually subsides spontaneously. Only in those cases in which suppuration occurs or an infection becomes diffuse, is the prognosis grave.

We thus see how a variety of cervical suppurative lesions gain access by way of these potential spaces to the mediastinum. The post-visceral space remains the route most frequently invaded. In Pearse's[17] collection of 110 cases 70% entered the mediastinum by this pathway.

Neuhof[20] reports esophageal perforation the causative agent of mediastinal suppuration in almost 50% of cases studied. Neoplasms — however constitute the most common cause, (of esophageal perforation), while trauma ranks second. Trauma from without producing perforation causes a much lower mortality than from within, and, as Jensen[21] states, these cases present a more hopeful picture. However, in the last World War gun shot wounds of this viscus complicated by infection carried a high mortality. Stab wounds, operative wounds, ill-fitting tracheotomy tubes Holinger[25] lists as etiological offenders. However, foreign bodies provoke a great number of traumatic perforations. Tucker[22] and Clerf[23] report fatal cases of massive hemorrhage complicating safetypins in the esophagus.

Perforation of the esophagus with the esophagoscope is rare in trained hands if the esophageal wall is sound, Jackson[24] states. The left pyriform sinus and the cardiac portion of the esophagus are the two most common sites for this to occur.[25] "Find the lumen is the fundamental rule of safety."[33]

Symptoms and signs are both local and general. They vary according to the region involved, the acuteness, and the degree of involvement. They may result from irritation, suppuration or compression states.

Disregarding, for the most part, those mild esophageal and para-esophageal lesions incident to perforation of the cervical esophagus, and turning our attention to infection of the post-visceral space, we classify the infections into local, diffuse and phlegmonous. The local lesions are characterized by a paraesophageal cellulitis with a low-grade fever, leucocytosis, pain and difficulty in swallowing. Emphysema may or may not be present. This lesion may localize with abscess formation. It is more apt to follow a small or a delayed type of perforation. If the abscess increases in size, we may observe pressure symptoms. General symptoms become more marked and besides esophageal obstruction there may be dyspnoea and cyanosis resulting from tracheal compression. Those lesions invading the area between the esophagus and the trachea, where elasticity is less, remain more localized. Cough may be irritative or due to aspirated secretions. There may be invasion of the great vascular structures. McClay,[26] Lerche[27] and Wright[28] report abscesses dissecting *up* into the cervical region.

The diffuse type is practically always limited to the postvisceral space. Here perforation carries the deglutory filth and flora into an ideal anerobic cultural media resulting in a fulminating invasive infection of this space. Constitutional symptoms are those of shock and are manifested by marked apprehension, chills, high fever, bounding pulse, a stabbing pain upon swallowing, while later prostration sets in. Locally swelling, pain and tenderness are present. Emphysema is more objective in cervical perforations but more obstructive in thoracic tears. Jackson and Jackson[24] state that *it* may prove fatal by pressure or shock even without infection.

The phlegmonous type occupies a position between the local and diffuse lesions and may incorporate characteristics of both, but is far less marked.

The diagnosis rests upon the history and foregoing symptoms and signs. Fluroscopic study and roentgenograms, antero-posterior, lateral

and quarter lateral exposures are of inestimable value. Pohl,[29] Kornblum and Osmond[30] have emphasized the importance of the upright position in making roentgenograms. Lambert and Berry[1] and Holinger[25] emphasize the increase in depth of the postvisceral space with displacement of the esophagus and the demonstration of air (or gas) in the paraesophageal tissues. Roentgenography is of great assistance in following the course of the infection.

Seldom does treatment exact such a nicety of judgment. Opinions concerning management are still at considerable variance, depending upon individual experience. If the perforation is small or latent there are those who believe in watchful waiting. Others believe in early external drainage. One thing is certain in those cases of fulminating *postvisceral* space infection complicating perforation of the cervical esophagus, early cervical mediastinotomy is the most important single therapeutic factor available. Mortality is about halved by this procedure, writes Burnett.

In 1901 von Hacker[32] proposed a prophylactic operation for packing the spaces in the neck. The rationale desired to prevent the dependent spread into the mediastinum from a cervical suppurative focus. This procedure was popularized by Marschik[33] (in this country). Palmer[34] and Glogau[35] have described it.

Current modifications have been presented by Furstenberg,[11] Heatly and Pearse,[36] Ochsner and Debakey,[19] and Pearse.[37] Furstenberg[11] advises that the approach be upon the right side. Especially is this true if the route of invasion has been by way of the lymphatics, for, as he writes, "to drain an infection through the tissues it has invaded, is, I believe, a surgical axiom." Other reasons for approaching from this side are that the right mediastinum is larger than the left, the lymphatic structure is much greater upon the right and the pleura and esophagus contact each other at a much lower level, behind the pericardium, upon this side.

In the approach to the mediastinum by way of the lateral aspect of the neck two routes may be used. The infrahyoid region may be divided into the supracricoid and infracricoid approaches. We recall now that that portion of viscerovascular fascia, extending from a point opposite the upper border of the thyroid cartilage down to the suprasternal notch, is called the neutral zone of the alar fascia, and that approach to the postvisceral space here is relatively free from danger.

The supracricoid approach is seldom if ever used for mediastinal drainage. It is best adapted for drainage of infection from the anterior portion of the retropharyngeal space per se, though the superior mediastinum, when suppuration is effected through this area, may be so approached.

The infracricoid approach is almost universally employed here. It is best utilized when the postesophageal portion of this space is to be packed prophylactically or drained therapeutically. Then too, through this approach the pretracheal space may be more readily reached and drained if infected.

Supportive Measures:

1. Posture — In these cervical esophageal perforations maintaining the patient at all times in the prone position until all danger from infection has passed is emphasized by Head.[39] Ochsner and Debakey[19] stress the importance of maintaining the patient in the Trendelenberg position *during* as well as after surgical drainage.
2. Nutritional balance is imperative. The esophagus must be put at complete rest. Intravenous medication should not be so prolonged as to further weaken the patient and make subsequent gastrostomy or the endoscopic passage of a nasal feeding tube hazardous.
3. Sulfonamid therapy appropriate to the cultured organism should be pushed to a high level. Mediastinitis is an anerobic pathological entity, consequently all oxidizing therapeutic measures should be instituted. Neoarsphenamine administration for Vincent-Plautt organisms is valuable. Strict oral hygiene is necessary.

CASE REPORTS

R. R., a 22 year old white male, developed a mediastinitis following the opening of an *alveolar abscess* at a dental clinic. Subsequent extraction of the infected tooth was immediately succeeded by a daily afternoon rise in temperature ranging from 100.2° to 100.6°, general malaise, a weight loss of five pounds, increased respiratory rate, a dry, persistent non-productive cough and a growing pain in the knee joints with stiffness involving the lumbo-sacral region. These symptoms were followed by a two-day period of intermittent hiccoughing at about fifteen minute intervals and spontaneous vomiting spells which had no con-

nection with eating. When admitted the patient's temperature was 101°, pulse 82, blood pressure 112/80, WBC 9,400. The gum at the location of the extraction was apparently healthy. X-ray examination revealed involvement of the mediastinum. Medical therapy was instituted. The patient was kept in the hospital for twenty-five days on rest, high vitamin and caloric diet, fluids and Iron & Ammonium Citrate (25% sol.) drams I t.i.d. He became afebrile during the second week of hospitalization and remained so until discharged, but the pulse rate continued to run between 90-100 until the last two days when it dropped between 80-90.

J. B., a white male, aged 55, was admitted for a pleurisy involving the left lower lobe on the posterior surface and possibly a portion of the diaphragmatic pleura on the same side. The patient first became ill a week prior to admission when he experienced all the symptoms of an attack of *la grippe,* sore throat, cough, chills and fever, associated, after three days, with a severe frontal headache and a sharp, continuous knife-like pain which extended over the entire abdominal region and localized, after several days, upon the left side, seemingly over the cardiac area. His temperature, 100.4° upon admission, fluctuated from 103.2° to 98.8° during the first week. Diathermy was applied to the left upper chest, but the patient, although not acutely ill, failed to improve. X-ray evidence indicated a large mediastinal abscess located behind the heart involving the median portion of the left chest. A thoracentesis (closed method) was done and about a pint of pneumococcus pus was removed. Dakin irrigations were instituted. Response was gradual but steady. Recovery was complete.

J. K., a 36 year old female, entered the hospital, having developed a mediastinitis following an esophagoscopy two days prior to admission. The patient complained of sore throat, dysphagia and tenderness upon palpation over the upper sternum. The neck had begun to swell on the left side. Temperature upon admission was 102°; WBC 19,400, X-ray findings were compatible with a mediastinitis and suggestive of a mediastinal abscess. An I. and D. of the abscess was done and much foul-smelling dark brown pus along the sides of the esophagus (posterior to the thyroid gland), *excavated.* Transfusions were ordered upon the 4th, 12th and 18th postoperative days. A temperature spike, 104.4°, occurred upon the 8th postoperative day. 62 gms. of sulfanilamide were administered during the first two weeks. The foul-smelling exudate diminished gradually; swelling and neck pain decreased. WBC dropped to 8,400. The patient was discharged at the end of seven weeks, but returned in two days, complaining of increased throat soreness and general malaise. Her temperature was 101°. This residual infection and associated slight fistula drainage responded to mild therapeutic measures and the patient was discharged two and a half weeks from readmission date, recovered.

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SOME EVALUATIONS OF CONSTITUTIONAL VERSUS ACCIDENTAL FACTORS IN MENTAL DISEASE

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In a broad sense, diseases may be said to be the result of an interplay of two fundamental factors: First, constitutional (that which is set or established) and, second, accidental (that which befalls). The term "constitution" is here used to cover the factors of race, family and personal heredity, pre-natal growth, the innate structure of the nervous and endocrine systems, and body configuration.

The two factors may operate in pure form or may operate jointly, the accidental being superimposed upon the constitutional. In some cases the constitutional factors alone operate, as in myopia, hemophilia, Huntington's chorea, amaurotic family idiocy, while traumatic loss of eye or limb, hydrophobia or teniasis illustrate the operation of accidental factors with no apparent influence of the constitution upon the cause, development or termination of the disease process. More frequently, however, there is an interplay of these two factors giving a somewhat complex picture of morbidity. Thus in tuberculosis in an asthenic individual we have a nearly equipotential operation of both factors, while the same disease in a deep chested person may be due to favorable environment. Likewise, carcinoma of the uterus in a virgin spinster would more probably be due to purely constitutional factors than an epithelioma of the lip in an inveterate smoker.

Recognition of the part played by each of these factors is of extreme importance for the proper evaluation of the etiology, course, prognosis and especially of the treatment of a given disease process. Nowhere is this more true than in mental disturbances, whether they be psychoses, neuroses or psychopathic personality.

Ordinarily the attitude of the patient and his family is antagonistic towards consideration of constitution as being of material importance in the etiology of the disease. They protest against insinuations of flaw in the stock from which they come and invariably mention some forebear who lived to be ninety and died of perfect health. On the other hand, the most absurd environmental factors are brought forth to explain the disease.

The tendency to overlook constitutional factors in disease is clearly illustrated by the fact that in our medical curriculum no organized course is offered on the medical aspects of heredity and constitution. Consequently physicians are almost as ignorant of constitutional factors as their patients and tend to lay exclusive emphasis on the accidental factors, frequently entirely neglecting the constitutional. After the storm now raging in Europe subsides, perhaps the only tangible contribution which race purists in polyhybrid Prussia will have made to medical thought will lie in the prominence which they ascribe to heredity as a fundamental factor of human infirmities. This growing tendency of today is well expressed by Besancon[1] who says: "Important as etiology is, nevertheless it must cede place in a great many morbid processes to the reactive modalities of the terrain of the individual and his temperament which in the last analysis can be considered responsible for the majority of pathological disturbances."

The striking feature of neuropsychiatric disorders is that here constitutional factors play an important part more frequently than in somatic disease. This no doubt is due to the fine specialization of structure and function of the neuraxis so that a slight structural deviation from normal may have a tremendous bearing on the

functioning of the part. For example, a horseshoe kidney will not necessarily cause the patient to have a disturbed urinary secretion, but agenesia of the corpus callosum may have a tremendous effect upon the psychomotor functioning of the individual.

The following list of some of the universally accepted hereditary disorders will illustrate the obvious importance of hereditary factors: Friedreich's ataxia, Huntington's chorea, Thomsen's myotonia congenita, aplasia axialis, cerebellar disease, muscular dystrophies, myotonia congenita, periodic family paralysis, hemeralopia and a host of other conditions.[2] Of the borderline diseases, the epilepsies and migraine admittedly have a strong constitutional factor, as evidenced especially by recent electro-encephalographic studies of relatives of epileptics. Statistics also point out that approximately 30 per cent of feeble minded persons have feeble minded siblings or parents, and that when both parents are feeble minded the incidence of the defect reaches 90 per cent in the offspring.

In the class of functional psychoses, the manic depressive group is most obviously characterized by familial occurrence and its transmission usually takes place as a dominant characteristic.[3] According to statistics gathered by Luxemburger, manic depressive psychosis occurred in 12.7 per cent of siblings of manic depressive patients and in 24.4 per cent of children of manic depressive patients, while the incidence of the psychosis in the general population was only 0.44 per cent.[4]

According to the same author, schizophrenia occurs in 7 per cent of siblings and in 16.4 per cent of children of schizophrenics, while the average incidence in the cross-section of the population was only 0.85 per cent. While manifest schizophrenia is recessive, the schizoid character is inherited as a dominant characteristic.[5]

It is also not difficult to find evidence of hereditary influences in the psychopathies. Psychopathic stigmata are said to be transmitted as a dominant characteristic. Furthermore they are common in neurotics, and neurotic behavior is well distributed in the psychopaths. Frostig states: "Here (in psychopathy) certain constitutional characteristics, certain aspects of .... personality are inherited as a dominant characteristic. They appear with such a force that environmental and educational influences are able to affect in but a slight degree the development of the personality. Their constitution according to the term used by Kahn is rigidly set." He quotes a case described by Gaupp in which a child from a family with tendencies towards pathological lying, stealing and vagrancy was adopted by a wealthy family and was brought up under most favorable conditions. This child began to steal, lie, and displayed a tendency to run away at the same age as the other children of that family.

The question of transmission of neurotic tendencies is a much more difficult one to determine because neurotics, being within the very limits of normal, present no striking physical or psychic evidence of hereditary features. But extensive psychiatric observation of neurotics and familiarity with their environment have led psychiatrists to consider transmission of neurotic trends a fact, even though the proof at present available is indirect and inadequate. According to Sadler,[6] 90 per cent of neurotics in his experience show evidence of hereditary transmission. He calls neuroticism "deficiency of emotional resistance." Kolle[7] maintains that there is no such disease as neurosis, just as there is no such disease as paralysis; there is only a readiness or susceptibility to a neurotic reaction (neurotische Reactionsbereitschaft). Jefferson, at the recent Milwaukee meeting of the Central Psychiatric Society stated that every mother of his cases of child obsessions was neurotic, and that he never found an obsession where the parents were healthy.

No clear relationship has been observed between the physical types and the neuroses. This could have been expected since neurotic individuals approach the normal closer than those with any other psychic disorder and might, therefore, be expected to favor mixed types. It may, however, be stated that neurotic behavior is more frequent in the asthenic leptosome types. And what is an asthenic leptosome but a person who chronologically has become a man while physically remaining a boy? This physical immaturity may be but the somatic counterpart of an emotional immaturity that characterizes the adolescent. Psychologists tell us that a boy reaches his intelligence peak at the age of fifteen

to eighteen years, a time when he is still far removed from emotional maturity.

Concerning the normal individuals, it is a matter of common observation that not only are the physical and emotional types inherited, but also intelligence and special talent. The slight effect of environmental factors upon intelligence is proved by records of children in orphanages where as great a variation in the I. Q. is observed as in the general population, while identical twins reared under different environmental conditions show a striking similarity in the I. Q.[8]

If there is basis for the general opinion that heredity is responsible for the phlegmatic character of the Swede, the romantic impulsiveness of the Spaniard, the fine esprit of the Frenchman or the financial genius of the Jew, it would not be an exaggeration to state that constitution is of equal importance in the production of the so-called functional psychic disturbances, since there is an imperceptible gradation from the normal to the psychically pathological in individuals of different races, tribes and families. Let those who contend that climatic, dietary and other environmental influences are of greater importance, take a trip from Texas across the Rio Grande or consider the marked differences not only in stature but in character between the stolid Swede and the alert Norwegian. Historically, the most striking example of the relative unimportance of environmental factors is the brilliant intellect of the ancient Athenian as compared with the brutal sensibilities of his neighbor, the Spartan.

When we consider the pleomorphic range of psychic disturbances one feature stands out as common to all of them: Some sort of an emotional change. Neuroanatomists and neurophysiologists have demonstrated that the diencephalon and particularly the thalamus and the hypothalamus are the seat of those activities which deal with sensation, feeling, mood, general emotional and instinctual drives. The thalamus may be regarded as the organ which imparts the feeling tone to cortical activity. As the great internode[9] in the course of all sensory pathways, it in turn is in intimate connection with all portions of the cortex by way of its stalks or peduncles. Especially prominent is the frontal peduncle joining the thalamus to the frontal lobe. This lobe is regarded as the seat of the higher intellectual faculties and of those composites of experience which constitute personality. It has the dominant control of all behavior reactions. Tilney and Riley[9] speak of the archeal current of feeling tone arising from the midbrain, pervading all of the higher faculties and coloring them with pleasure or displeasure. If this influence becomes expanded too extensively in consciousness it becomes the basis for production of "that extensive group of nervous maladies known as the neuroses and the psychoses."

The hypothalamus, as the end brain of the autonomic nervous system, controls those organ functions which act as somatic concomitants of emotional change, namely heart action, respiration, vasomotor, and sweat activity, sleep rhythm, etc.

In a normal individual ordinary or even moderately extraordinary cortical activity does not appreciably influence diencephalic, autonomic activity, and similarly changes in the autonomic function are not ordinarily registered upon the cortical perception centers. This means that there is a certain definite threshold which must be reached to permit a perceptible diffusion of cortical activity into the diencephalon to influence its centers and vice versa. It is not difficult to demonstrate that this threshold varies widely in different individuals. I have seen this phenomenon repeatedly demonstrated in cardiac patients. A "nervous" woman will suffer great anxiety over an occasional extrasystole or palpitation, while another patient with an organic heart disease and with a serious type of arrhythmia may remain totally unaware of the heart action until his dying hour. The difference in reaction to labor pains is another common example.

The phenomenon in which the threshold for thalamocortical and corticothalamic stimuli is abnormally low may be called diencephalocortical and diencephalo-autonomic dysrrhythmia, which is analogous to the concept recently introduced in epilepsy. This concept may be regarded as the anatomophysiologic basis of neurotic readiness or susceptibility. We may speculate that such a process results from abnormal diffusion of impulses or excessive permeability or sensitivity of the pathways, a sort of thalamic dominance conceivably a physicochemical defect in the

insulating mechanism. The thalamus probably has the same relation to orderly cortical activity as the cerebellum has to motor functions.

This hypothesis has considerable support in clinical experience. In early multiple sclerosis there is a loss of protective myelin sheaths occurring frequently first in the brain stem and interbrain. Here the resemblance to certain types of neurotic behavior may lead to difficulty in differential diagnosis. In both conditions there may be an intention tremor, nystagmoid movements, hyperactive reflexes, vertigo and emotional instability with outbursts of weeping or laughing. In organic lesions of the frontal lobes, involvement of the corticothalamic pathways leads to an unwarranted euphoria not unlike that occurring in hypomanic or manic states, and I have seen a case of general paresis diagnosed by a good neurologist as catatonic stupor. Furthermore, manic depressive types of general paresis are well known and, according to Schube,[10] occurred in 69 per cent of 300 paretics studied by him. The close similarity of catatonic picture to certain types of striatal disease is also well recognized.

Freeman and Watts,[11] following the work of Egas Moniz, have shown by direct experiment on neurotic and psychotic patients that in their technic of prefrontal lobotomy by cutting through directly across the frontothalamic connections, profound emotional alterations are produced. These were characterized by abolition of apprehension, anxiety, hypochondria, nervous tension and initiative, and production of "an emtionally flattened, euphoric, lazy, good-for-nothing drone, who nevertheless, is quite relieved of all his doubts and fears and lives on from day to day in a state of cheerful indifference."

Disturbances in time and space relationships a sort of loss of "local sign" or a feeling of unreality, occur in lesions of the temporal lobe as evidenced by *déjà va* and *déjà vécu* phenomena. It may be not entirely coincidental that those forms of schizophrenia in which the most severe breaks with reality occur should also be characterized primarily by auditory hallucinations, also presumably a concern of the temporal lobe.

Violent diffusion of stimuli may be the mechanism of Jacksonian epilepsy and perhaps through the autonomic nervous system of idiopathic epilepsy. If idiopathic epilepsy as described by Yakovlev is a storm in the vegetative nervous system and if the diencephalon is concerned principally with neurotic and psychotic manifestations, then it would be clear that the method of shock therapy attacks the process at its source. This is particularly true in insulin therapy which, whatever its rationale, produces its most marked objective effect on the autonomic nervous system.

It has been said that hysteria can simulate all sorts of organic diseases and one may hold with equal justice that the converse is also true; namely, that all sorts of neurotic and psychotic symptoms may be simulated by organic disease.

One of the great contributions of Freud and his followers was in the sphere of early childhood behavior. They found that, even more so than in the case of primitive races, child behavior strikingly resembles the behavior of psychotics. It is said that in the normal development of a person he must pass through a psychotic stage and that psychotic behavior is normal for the infant and child. Emotional instability, flight of ideas, increased psychomotor activity, negativism, suggestibility, verbigerations, neologisms, perseverations and repetition phenomena, seizures of rage and panic, exhibitionism, and many other symptoms so common in psychoses constitute the normal behavior of childhood.

Parallel with these psychological differences between the child and the adult are anatomical differences in the brain structure. According to Mellus[12] no cells of the brain are fully developed at birth. The increase in volume of a cortical cell during the development of the cell body, nerve fiber and processes varies greatly according to location and function. Even more striking are the results of studies in myelinization carried out by Flechsig, Vogt and others. According to them, the first fields becoming myelinated are the thalamic sensory projection fields, starting with the olfactory areas, the paleocortex and the archicortex. Then follow the projection areas of the neocortex such as the central region, calcarine area and Heschl's convolution. The last in order to myelinate are

Flechsig's areas 34, 35b and 36 in the region of the supramarginal gyrus, prefrontal and lower temporal areas respectively, the regions of most advanced psychic and intellectual faculties. Thus a child at birth with only thalamic projection fibers medullated can be considered at least from the point of view of myelogenesis predominantly a thalamic animal.

If then the development of mental disorders depends upon a constitutional susceptibility organically determined, certain of the concepts of the psychoanalytic school should be reexamined from this point of view. The psychoanalytic school in its therapy disregards practically completely constitutional factors. It appears to confuse the symptoms and the precipitating factor for the disease itself. Pathoplastic mechanisms are confused with pathogenetic factors. Certain of the so-called traumata of early life, such as the "catastrophe of birth," witnessing of the "primal scene," oedipus complex, castration fear, etc., are the common experience and heritage of mankind. They precipitate neuroses only in those individuals who have the constitutional readiness to develop them. In discussing the psychic conflicts of children Frostig states,[13] "Once more we must remark that generalizations concerning the importance of these states in the developmental phases of every childhood have not been confirmed. It does, however, appear certain that within the limitations of certain constitutional types such as the schozoid, the hysterical or the compulsive the complexes described by Freud do occur."

The therapeutic value of laborious reconstruction of the dynamics of a given neurotic symptom is highly questionable when the constitution responsible for it remains unalterably fixed. Even if we "remove" a given symptom by the process of psychoanalysis, the readiness to react neurotically under subsequent stress remains and will reappear under new symptoms. This explains the recurrence of symptoms and anxieties which bring the patient back to the analyst after an apparent "cure." The usual explanation given is that there are still certain unresolved conflicts in the deeper layers of the unconscious requiring further analytic "working through." And thus 100 hours, 200 hours, 300 hours and 600 hours are piled up in the records and the patient remains a neurotic. The leopard still retains his spots.

Psychoanalysts assert that they alone are properly trained and have the proper perspective required to manage neuroses. Alexander[14] states "Psychoanalysis deals with psychological facts and tries to influence psychological processes by psychological methods. Therefore, by definition psychoanalysis should be excluded from medicine." He further elaborates this thesis with the statement: "The psychodynamics approach makes possible the intelligent and systematic influencing of pathological mental processes, that is to say a causally oriented psychotherapy." Orthodox psychoanalysts further make three sweeping claims which have not been substantiated clinically, namely that there are purely psychological factors; that analysis can produce a cure, and that it can cause a permanent change in the total personality.[14]

Once in the course of an informal discussion Dr. Favill remarked that his chief objection to psychoanalysts was their dogma of infallibility: "If you do not accept *my* interpretation it is because of *your* resistance." It would seem that in addition to this, psychoanalysts desire to usurp the power of reconditioning the germ plasm which required uncounted generations to evolve and which had been crystallized long before the patient lay on the psychoanalytic couch. It is with a feeling of guilt that Alexander grudgingly admits the constitutional basis of schizophrenia. He states, "The early origin of schizophrenic symptoms allows us to make an etiological postulate that in schizophrenic psychoses the inherited constitution generally plays a more important role than in neuroses. It is difficult to imagine that external influences alone are responsible for this early weakness of the ego."

More charitably inclined towards constitutional factors is Freud himself. In discussing thumb-sucking he voices the following opinion:[15] "Not all children suck their thumbs. It may be assumed that it is found only in children in whom the erogenous significance of the lip zone is constitutionally reinforced." Speaking of constitution and heredity, he says "In the first place we must mention here the congenital variation of the sexual constitution upon which the greatest weight probably falls but the existence

of which, as may readily be understood, can be established only through its later manifestations and even then not always with great certainty . . . . *We can also imagine certain variations of* the original disposition that even *without further aid** must necessarily lead to the formation of an abnormal sexual life. One can call these 'degenerative' and consider them as an *expression of hereditary deterioration.*"

Psychoanalysts contend that their method is not one of simple suggestions but a scientific approach to the dynamics of psychic disturbances. Perhaps the fault lies with the term "suggestion" which should be augmented by another term "substitution." The patient in developing a symptom and the physician in removing it both suggest the substitution of a more acceptable somatic symptom or an idea for the disagreeable psychic conflict. For example, in anxiety neurosis there is a substitution of cardiac, gastric or other somatic complaints for an emotional tension, while in the treatment the analyst substitutes a "cause" for the symptom, such as a desire to kill father so that one may possess mother. The patient at first rebels furiously and, then, accepting the interpretation, emits a sigh of relief: "No wonder my heart was beating so hard. Anybody's would if he wanted to do anything like that."

It is not the purpose of this paper to deprecate the value of psychoanalysis as a therapeutic method. Its value has been demonstrated and is reasonably accepted. But so is the psychotherapy of the family physician, the Jungian, the Adlerian, the Stekelian, Mary Baker Eddy, the Holy Virgin of Lourdes, blarney stone and the African medicine man — each in its proper milieu. Where there is legitimate basis for dispute is in the aims of the orthodox psychoanalysts. That part of their problem which deals with the dynamics of psychopathology, i.e. the understanding or explanation of the evolution of mental symptoms, has been fruitful and, although a great deal of the superstructure will in time be discarded, much of permanent value will remain. The principal objection is to their contention that they are able to effect a cure of neuroses. Minute pathological description of a tuberculous process is still far from a cure. Since neuroses are a reflection of a neurotic personality constitutionally determined like myopia or pes planus, I believe that such an aim, while laudably *ambitious, is a vain attempt.*

The aim of psychotherapy should be the same as that of cardiology in treatment of heart disease. One does not attempt to cure valvular defects. One merely tries to adjust the patient's life and work to his cardiac potentialities. In psychotherapy we are also dealing with a constitutionally handicapped individual. We must study all aspects of his total personality in order to teach him to conduct himself with least harm to himself and the community, to enhance his value to his fellow men and to avoid, if he cannot overcome, life situations which lead to disagreeable emotional tensions and the consequent lowering of efficiency. We must concede that the patient, as a result of a constitutional dysrythmia of his emotional mechanism, will remain with this handicap as long as he lives just as a myope, a cardiac or a flat foot must indeed remain with his. It is perhaps this fundamentally unmodifiable constitutional factor in psychic disturbances which has been responsible for the marking time of psychotherapeutic progress so far behind somatic therapy. Workers soon discovered a way to arrest general paresis which is largely accidentally determined but in matter of the so-called functional psychoses not even the surface of the therapeutic rock has been scratched.

With this limitation of the psychotherapeutic aim in view, it is useless to go into a laborious "deep analysis," except for purposes of research into the psychodynamics of human psychology, as when in disturbances of the thyroid gland we place an occasional hyperthyroid patient in a metabolism chamber. Psychotherapists should not boast of the number of hours which they spend with the patient. Rather the aim should be to develop such a technic (which, of course, must vary in detail with each individual case) that the patient may regain his psychic comfort in the shortest possible time. The physician may rest assured that in six months, a year or later the patient will return to him or to another doctor with the same or another problem, whether superficially or "deeply" analyzed and however thoroughly "synthesized."

* Italics mine

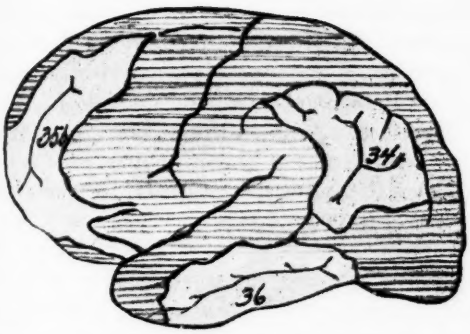

Figure illustrating myelinization. Unshaded areas are last to myelinize. (After Flechsig)

We must never lose contact with the material, the organic. Psychological research must be correlated and integrated with material investigation. The solution of neuroticism must be sought in the study of the relative differences in the anatomophysiologic sphere in the nervous system of normal and neurotic individuals. Every psychiatric or intelligence investigation should be accompanied by an inventory of the individual's emotional equipment. An A.Q. (affect quotient) should be elaborated as well as an I.Q. As the driving force of the personality the former is probably more important than the latter. A move in the right direction would be to combine intelligence testing and psychiatric examination simultaneously with temperament studies, Rorschach tests, cardiovascular studies, respiratory and skin changes such as sweat secretion, temperature changes, and electrical resistance. "Purely" psychological and theoretical speculation of "purely" psychological problems quickly leads to a standstill and barrenness of effort. Let us keep clear of medieval dualism. We must never lose sight of the basic principle of biology that organic concomitants are a *sine qua non* of all biological activity and we must seek an organic basis in every phenomenon of human behavior, no matter how distant its solution may appear for the time being. The axiom *mens sana in corpore sano* is still valid

SUMMARY AND CONCLUSIONS

Disease processes have been described as arising from constitutional and accidental factors acting independently or in variously combined proportions of each other.

Evidence was adduced in support of the theory that heredity and innate constitution are the most important factors in predisposition, susceptibility or readiness to functional psychic disorders and far outweigh accidental factors.

An anatomical basis for functional psychic disorders has been postulated as a diencephalocortico-autonomic dysrhythmia.

In view of these premises it is maintained that a cure of a neurosis is impossible with the present methods of therapy but merely a temporary removal or alleviation of symptoms by a suggestive-substitutive method, and perhaps a prevention by proper extension of the scope of mental hygiene.

Neurotics should be regarded as handicapped individuals with a poorly developed emotional equipment and the aim of psychotherapy should be to lead the patient through life stresses despite the handicap and to prevent exposure of his nervous system to undue situational strains. It would perhaps be profitable to eliminate entirely the unfortunate term "functional" from psychiatric nomenclature. The term "constitutional" would be a more logical one.

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A REVIEW OF AMBLYOPIA EX ANOPSIA

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Amblyopia ex anopsia and its relation to industry may well command our attention in times like these. Those cases that a few years ago were the responsibility of the parents or doctor or both, may today be a factor, small perhaps, but still worth attention, in this national emergency.

Other factors, too, have recently aroused us to a greater sense of obligation to the patient with a functionally amblyopic eye. Many have felt that improving vision in these cases may be ill-advised, due to the anisometropia sometimes associated. The promising outlook for the future of practical aniseikonic studies on private patients and the prescription of aniseikonic lenses may alter this viewpoint.

MINIMAL VISUAL REQUIREMENT

	Without & With Correction	
Large Chicago Electrical Corp.		20/30 - 20/40
Three Large Railroad Co's.		
Classes "A" & "B" Enginemen	20/30 - 20/40	20/20 - 20/20
Class "C" Conductors, etc.	20/30 - 20/40	20/30 - 20/20
U. S. Civil Service Post Office Service		20/30 - 20/30
Driver's License		20/40 - 20/100
Army Draftees	20/200 - 20/200	20/40 - 20/40

To recall a few facts that most of us already know, I have listed the visual requirements in several fields of endeavor. These have been labelled anonymously on request of the companies. Most of the occupations affected by the Workmens' Compensation insurance will require a minimum of 20/50 corrected visual acuity.

Amblyopia Ex Anopsia Is Characterized By:

1. Functional impairment of vision in one or both eyes.
2. No demonstrable pathological lesion.
3. Vision not improved by correcting ametropia.
4. Strabismus may be associated.

Amblyopia, as we shall refer to it here, implies functional impairment of the visual faculty of generally one, seldom both eyes. There are no demonstrable pathological lesions. Correction of the refractive error does not improve the vision. There may or may not be an associated strabismus.

There seems to be little agreement as to the exact central vision typical of this condition. To avoid controversy, let us think in terms of vision somewhere between 20/70 and finger counting.

Like many other vague phenomena, amblyopia ex anopsia has been variously defined and classified. Guibor[1] has listed the types of amblyopia apparently on the basis of their response to treatment. The first type found in young children responds spontaneously and completely on correction of the ametropia. This, states the author, is not a true amblyopia. The second type in Guibor's classification, responds to occlusion of the fixing eye. The third type is not amenable to treatment.

Abrahams' Classification Of Amblyopia Ex Anopsia

A. Congenital Amblyopia.

B. Acquired Amblyopia.

1. Passive suppression (Ametropia)
   a. Bilateral
   b. Unilateral
2. Active suppression
   a. Bilateral
   b. Unilateral (Squint)

In the classification which Abraham[2] offers, the *passive suppression* is a type of amblyopia which he believes is associated with anisometropia. The *active suppression* is associated with strabismus. The congenital and bilateral amblyopias relegated to a rather important place in this grouping, are still only presumptive.

In arriving at this classification 1,400 cases were reviewed of patients examined under cycloplegia and in whom the refractive error was no greater than one diopter in any meridian; in these cases no pathologic changes were demonstrable. In only one case in this group was the vision in either eye less than one.

In A Group Of 400 Consecutive Cases

1. Showing no demonstrable pathology;
2. With 1.75 diopters or less in any meridian of either of both eyes; and
3. In which the visual axes are parallel.

There were three cases with less than 20/25 *in either eye.*

Presented before the Section on Eye, Ear, Nose and Throat, 102nd Annual Meeting Illinois State Medical Society, Springfield, May 19, 1942.

In our review of 400 cases, using 1.75 diopters as a maximum refractive error in any meridian of either eye, only three patients had a corrected vision of less than 0.9. No squint cases were included. In one case, the right eye was emmetropic while the left required +1.75 cylinder axis 165. All the cases with less than 1.0 vision had been retinoscoped under cycloplegia.

Using the above group as a control, a similar group of cases showing no pathology and having at least 2.00 or more diopters difference in refractive error in the two eyes revealed this interesting fact: in 24 of these cases, or 6.0 per cent, the vision in one eye was less than 20/50. J. Ziering[3] feels that anisometropia may be the main cause of amblyopia; that the child before the ocular movements are guided by fusion, uses the eyes alternately but prefers one eye if the refractive state of the other is such as to make its use more difficult. Thus amblyopia develops through disuse during the first 6 months of life. In all of these cases only one bilateral amblyopia was found.

Bilateral Amblyopia
White, female, 47 years of age.
Refraction Under Cycloplegia:
O.D. +1.00 () +4.50 axis 130 = 20/200
O.S. +1.50 () +4.00 axis 65 = 20/200

The patient was a female, age 47 years. Had never worn glasses. Refractive error, under cycloplegia was:

R. +1.00 () +4.50 axis 130
L. +1.50 () +4.00 axis 65

Vision remained 20/200 in each eye without or with correction. This, our one case of bilateral amblyopia, has no definite diagnosis made. We lost contact with the patient following the above studies. From the vague history and uncertain field we have suspected malingering or possibly an hysterical amblyopia.

In 25 squint cases including all types, we found 18 in which the deviating eye was amblyopic. All of these have been followed closely over a period of several months and the results of treatment carefully tabulated.

In 25 Cases Of Squint Of All Type

1. Eighteen cases of uniocular amblyopia.
2. Twenty of the cases under 12 years of age.
3. Three alternators; three accommodative esotropias.
4. Two cases with macular choroidal lesions.
5. One case with refractive error.
   O.D. +4.00 () +1.75 axis 90 = 20/200
   O.S. +3.25 sphere = 20/20
6. Fifteen cases of amblyopia accounted for only by the squint.

Twenty of these cases were 12 years of age or younger. Three were true alternators: three were young accommodative squints, with only occasional convergence. This may explain the six cases in which no amblyopia was found. Two of the group had macular choroidal lesions. In another case, the refractive error could have been a factor in the amblyopia. In the remaining 15 cases, no other factor except the squint could be found to account for the amblyopia. If Young's[4] suggestion that "the incidence of squint is increasing" is correct, our problem with the management of amblyopia may proportionally increase. There is the occasional amblyopic eye in which we see no trace of pathology; the refractive error is small or possibly emmotropic; the visual axes parallel. Our first interest in these cases is in differential diagnosis; we begin to think of the other possible causes of an amblyopia. In our differential, several things including a good history, a field of vision, and a careful fundus examination often aid. Can it be definitely established that the vision has been poor in this eye over a long period of time? Finally, observation of response to treatment over a few weeks may be necessary to finally rule out a definite pathological basis for the amblyopia.

It is thought that many of these cases may have had an inflammatory, traumatic or vascular disturbance in the macular area. All traces of this may be lost. Often in children, only a fleeting glimpse of the macula is obtained, and a small even significant trace of pathology may be easily missed. Examination of these maculae with the Friedenwald or a similar ophthalmoscope may take many amblyopias out of the realm of functional.

In this connection should be mentioned one of the several amblyopias which we have misclassified. After a complete workup of a unilateral squint case 8 years of age, we found the correction shown.

JOHN SMITH

Age	Vision	Refractive Error
8 years	20/200	—1.50 () +2.00 axis 60
	20/20	+1.50 () +0.75 axis 90

Choroidal macular lesion found after two months of treatment.

There was good central fixation. The fundi were normal. We gave a fair prognosis and proceeded with our treatment. After one month, vision in the amblyopic eye was 20/100 —. Treatment was continued another month but with no improvement in vision. After dilatation, a faint but definite crescent-shaped choroidal lesion was found in the macular region. This was an old lesion and was quite definitely missed at the first examination.

Disregard of factors such as these has, no doubt occasionally thrown the management of functional amblyopia into disrepute.

Fundamentally, then, our cases of amblyopia which are truly functional are due to disuse. We are not interested in debating the issue as to relation of amblyopia and the causation of strabismus. Many have with Verhoeff[5], accepted both sides of this issue as true. We have seen that in 25 cases of squint, of all ages and types, 18 unilateral amblyopias occurred. Fifteen of these responded to treatment. Assuming that this therapeutic test is the final verification of our diagnosis, and that only 15 of these cases should be placed in the group of functional amblyopias, 60% of our squint cases in this group could be said to have a functionally amblyopic eye. Zimmermann[6] reports that from a group of 150 patients with strabismus, sixty-eight cases, or 45%, had a disturbing amblyopia, which in 18 amounted to 1/60 of normal vision.

The following grouping is offered as a practical, working classification:

A Classification Of Amblyopia Ex Anopsia

I. Amblyopia associated with squint.
   a. With anisometropia
   b. Without anisometropia

II. Amblyopia associated with anisometropia

III. Idiopathic functional amblyopias.

In this latter group are placed all those cases which are associated with neither squint nor anisometropia.

Thinking of specific cases in terms of this grouping may occasionally aid in determining the prognosis.

Response Of Groups To Therapy

I. Amblyopia associated with unilateral squint

ZIMMERMANN'S CASES

In 68 cases, 20/30 + vision obtained in 62.

GROUP REPORTED ABOVE

In 18 cases, 20/30 + vision obtained in 16.

II. Amblyopia associated with anisometropia

In 12 cases, 20/30 - vision obtained in 5.

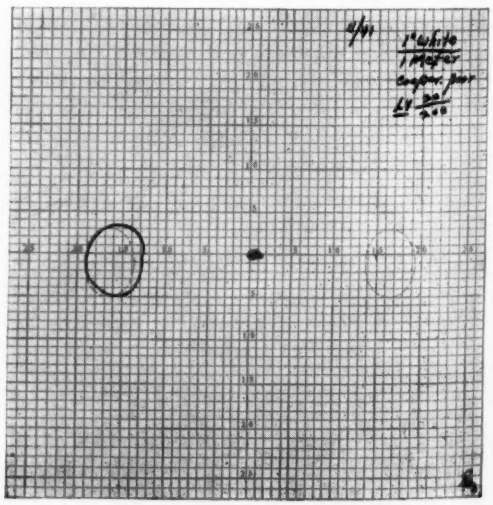
III. Idiopathic

In 4 cases, 20/30 - vision obtained in 1.

In group I, the results following treatment in squint cases, both with and without anisometropia are shown. In group II, the percentage of successes is markedly less. The smaller number of cases in group III may be a reflection of our effort to eliminate the idiopathic amblyopias from the functional group. No conclusion should be drawn from so few cases, but the inference seems to be a decidedly bad prognosis in this latter group. If our classification is of any value whatsoever, then, we can immediately after examination, group our cases and have some idea of the therapeutic result we may expect.

Any discussion of etiology is hardly complete without a mention of prevention. Young[7] believes that the average age at which most of these cases are seen is around eight years. A much earlier diagnosis is, as we all know, desirable if a good percentage of results is to be obtained.

The mechanism of amblyopia is variously described. Most investigators agree that a central scotoma or area of macular suppression exists. Whether this results from a peripheral or central inhibition, or both, is widely debated. Accord-



ing to Travers[8] the suppression is most marked at the center and fades toward the periphery. Harms[9] describes the scotoma as consisting of a "small stable and a larger labile part. The stable part corresponds to the 'blocking', and the labile part, to the impulse of inhibition. The latter disappears when the fixing eye is covered." This conception may aid in understanding the varying perimetric measurements obtained. Pseudoscotoma is a term suggested by Abrahams[2] in contradistinction to those genuine scotomas of retrobulbar neuritis, toxic amblyopia, etc.

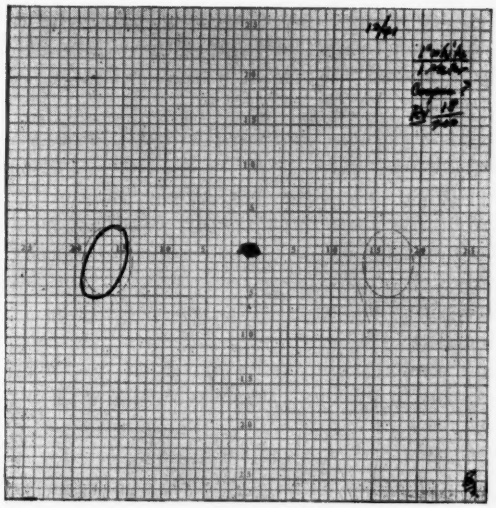
The greater percentage of the cases which we have studied were in the younger age groups. Despite this, we have attempted on many of these patients, to demonstrate the central scotoma by monocular perimetry. The uncertainty of our results would allow us to say, only, that there exists in most of these cases, a varying sized, but generally small, roughly round central scotoma. By binocular stereoscopic methods, Uhthoff[10] was able to demonstrate 2 to 6 degree scotomas on 50% of 100 patients, elminating all with vision less than 1/6.

In none of these cases can ophthalmoscopic changes or anatomic imperfections be demonstrated. The color and light sense of the whole retina are preserved. Vogt,[11] for these reasons, places the seat of amblyopia ex anopsia in the brain and not in the eye. Harms[9] assumes that there is a preformed inhibitory mechanism, the impulses for which arise in the supracortical sensory centers for associative combination, descending by way of the visual paths to become active in the ganglion cells of the retina. Amblyopia results from a continuous inhibition by this mechanism. By measuring the action potential in the optic nerve of an excised eye and by use of the electroretinograms, Best[14] has shown that inhibitory impulses may arise from the retina itself.

For a summary of the pathogenesis of this amblyopia, Duke-Elder[13] expresses it tersely:

"....since the habitual lack of facilitation of the higher nervous paths will result in their employment with difficulty when occasion should require, useful vision in this eye may be functionally suppressed. In this way there will develop an amblyopia ex anopsia."

The practical aspects of this central scotoma seem to be illustrated in one of our cases. The



area of supposed suppression in this case varied from what we had seen before. The scotoma tended toward a linear rather than circular form. There was some question as to cooperation, and the field was retaken on second visit, but with a similar result. You have noted from the illustrations and discussions that the scotoma expected should be generally small and approximately round. The patient was dilated again, and a close study of the macula revealed a faint, streak-like choroidal lesion, traversing the macula. This had been over-looked at the first examination.

Treatment of the amblyopic eye aims at stimulation of the macular and perimacular regions. Beard[14] has well-labelled many of the things we shall mention under therapy, as "platitudes" to the average oculist. That, possibly, is too true. These simple procedures in therapy are so platitudinous that the instruction to the parents and patient are often left in the hands of the secretary — orthoptist, who perfectly capable though she may be, cannot ofttimes carry with her remarks the prestige necessary to cause a mother to devote the watchfulness and hours essential for a good result. And when this patient returns for regular check-ups, it should undoubtedly require the time and patience of the doctor. All of us have heard from the patient or parent the statement of the family physi-

cian that "he will grow out of it." I wonder if our casual conduct of some of these cases may have filtered back to him through the same channels?

At least three things are necessary to a reasonably amount of success in the therapy of this condition. First, the utmost cooperation of the parents, or those in charge of the patient, must be enlisted. We say parents because the great majority of our cases are under 12 years of age. In the older age groups cooperation of the patient is often very uncertain. However, the possibility of improving vision may exist far beyond this age. Vogt[11] reports in a patient 44 years of age, a case in which occlusion of the central retinal vein of the left eye forced a converging and extremely amblyopic right eye into action. Useful macular function was obtained in spite of the patient's age. Abrahams[2] has stated that the response to proper treatment is usually favorable at any age. Secondly, a thorough understanding of the purpose and exact technique of occlusion by the parents, and third, an inordinate amount of patience on the part of the oculist.

After the refractive error had been carefully corrected in these cases, the sound eye was completely covered continuously with a regular eye-patch, held in place with adhesive or Scotch tape, in such a manner that the patient could not see around it.

Response Of Amblyopic Eye To Occlusion

No. Cases	Original Vision	Final Vision	Months of Occlusion
5	8/200 — 20/100	20/30 — 20/20	4 mo.
5	18/200 — 20/100+	20/30 — 20/20	3 mo.
8	20/200	20/30+	6 weeks

The time necessary to bring the vision to maximum level is shown. We attempt to continue this type of occlusion until the vision is the best possible to obtain. Generally, after about 2 months there is some discontent with the patch. At this stage one may substitute any type of vacuum cup occluder. The varying extent to which amblyopia is overcome is explained by Verhoeff[5] as "dependent largely on the age and the degree of persistence of subconscious visual suppression or by actual injury which this abnormal process may cause to the visual mechanism."

After the vision has attained its maximum level, the occlusion may be discontinued, except for one or two hours daily. If this period of occlusion does not hold the vision up to maximum level, the time must be increased. After visual acuity has reached 20/40 or 20/50, fusion training may be started. In one of our cases the patient failed to return for three months after the vision had reached 20/25. Occlusion had been discontinued. The visual acuity slipped back to 20/200, but readily responded to occlusion.

The amount of improvement of the angle of squint following this above procedure may well be one of the tenets in separating surgical from non-surgical cases. Surgery may be necessary at this stage to give parallel visual axes.

Pascal[15] and others have suggested that fusion training be started when the visual acuity reaches 20/200. We have tried this in several cases and believe that it is often a waste of time. Where the visual axes are not parallel, there enters the danger, too, of training on a false macula. After second grade fusion is obtained, we discontinue occlusion. The safe procedure, probably, is to check the fusion and visual acuity of these cases about every two or three months.

A follow-up study by Frieberg,[16] of seventeen cases shows that the improvement in vision obtained by treatment of amblyopic eyes held in those cases which had binocular vision; in other words, in those cases in which the eye was being used. If there was lack of parallelism of the visual axes, the visual improvement did not hold.

The use of atropine in the good eye is disapproved because of, (1) the long period of dilatation necessary; (2) frequent complaints of photophobia; and (3) the occasional reactions seen in younger patients.

SUMMARY

Several inferences seem justifiable from the above discussion:

1. This type of ablyopia is often associated with unilateral strabismus, and/or anisometropia.
2. The mechanism is poorly understood. Suppression, either central or peripheral or both, seems to be the basis. A small central scotoma is present in most cases.

3. Prognosis depends upon the group into which the case falls:
   Group I — Amblyopias show about 70% successes.
   Group II — About 50%.
   Group III — the prognosis must be guarded.
4. Treatment is not complete with only an increased visual acuity. Our final goal is the greatest degree of fusion possible.

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DISCUSSION

Dr. Walter Stevenson, Quincy: Dr. Morgan has brought to our attention a subject which has received too little consideration from the average eye physician. Off the record, I think it can be safely said that most eye men are as guilty as am I; being satisfied with correction of a cosmetic defect. If we would all realize that a deviating eye must, of necessity, lose vision and that it is our duty to preserve the physiological function rather than to correct a crossed eye the patient would be better served. Too often we are apt to tell the parent that "when the child is old enough we can correct the squint and everything will be all right."

Dr. Morgan's reference to the fact that visual defects act as a handicap both as to industrial and military service is timely. I know of no other way to maintain vision, in what would otherwise be an amplopic eye, than to use occlusion. Occlusion too often means to most of us, exercising the defective eye by an occasional patch on the seeing eye, which is inadequate. Occlusion must be total and must be continued over a long period of time, and in the case of squint, must be continued up to the very time of correction either by orthoptics or surgery. My experience has been somewhat limited in the use of orthoptics and perhaps I should plead guilty, as I presume many of you also might have to plead, that in the rush of time we do not give sufficient attention to these procedures. Dr. Morgan's objections to the use of atropine instead of occlusion are good ones, but my feeling about it is somewhat different. My objection to atropine is that it does no good except in accomodative squint.

There is no doubt that many cases of squint with amblyopia can be corrected from the cosmetic standpoint, without surgery, and I agree with the emphasis he has placed on that.

I have a feeling which I cannot substantiate, that those cases in which there is a definite relative scotoma are the cases which do not respond well, if at all, to treatment. I also have a feeling that the production of a new or false mocula is hypothetical and most authorities agree that they have never been able to demonstrate that such a phenomenon has been observed. Just what factors lie behind the production of those cases of amphyopia in which there are no objective findings remains unsolved. The probabilities are that the visual tract is somewhere congenitively defective. Those cases which can be improved from a visual standpoint are, undoubtedly, the only true cases of ambylopia exanopsia.

Dr. Morgan has not stressed the difficulties encountered with true alternating strabismus. These cases cause much trouble even though the cosmetic difficulty is corrected by orthoptics or surgery. True retinal correspondence is the thing we must strive toward in the treatment of all types of the condition, which is the subject matter of Dr. Morgan's paper. I want to congratulate Dr. Morgan for bringing to our attention a subject which is of vital importance and I hope that we may have another paper from him along the same lines at a future date. Unless the eye physician pays more attention to the correction of this defective visual condition, more and more cases will drift into the hands of the optometrist, who by the way, is being much more attentive to this difficulty and its correction than are perhaps many of us in the medical profession. Patience, intelligence, and persistence are necessary.

Dr. Palmer Good, Oak Park: Dr. Morgan's paper is interesting to me because it coincides with many of the results we have obtained at the Children's Memorial Hospital in Chicago. I would like to emphasize the importance of determining the visual acuity of children while there is still a reasonable good chance for improvement. We are able to determine the visual acuity of many children four years old. We have come to the conclusion that most children four years of age can be corrected to have 20/25 or 20/30 vision

so that in those children who have less than 20/40 vision in one or both eyes, it is imperative that the treatment of amblyopia be started.

The determination of visual acuity in these younger children is facilitated by using a self illuminated disc. In this way the child can see only one object at a time, is attracted by this illumination and can actually see it rotate from one position to another and "catches on" much quicker. The treatment of amblyopia differs somewhat in a clinic from private practice due to the cooperation given by the parents. In general complete occlusion of the better eye for at least one month, followed by lacquering of the lens before the better eye, will lead to as rapid an improvement as possible. If, after one month of complete occlusion, there is no improvement, I think it inadvisable to persist in further treatment. Atropine is used frequently in the better eye in the clinic and this is valuable because of the fact that it cannot be removed, while in private practice lacquer is less objectionable to the parents and usually their cooperation is good in regard to the wearing of the glasses.

Dr. H. L. Ford, Champaign: It is my impression that many cases of squint have as an etiologic basis anomalous retinal correspondence.

I would like to hear something about the question of bifocals and the advisability of using a +2.50 addition over the distance correction.

Dr. George E. Morgan, Bloomington (closing): I want to thank each of you for your discussions, particularly Dr. Stevenson for his kind remarks. I did not care to say too much about the central scotoma in these cases. In most of these children the results of a central field were questionable. Where I got definite scotoma, I often questioned its exact extent. However, I do believe that some sort of a central scotoma is present in most of these cases. There is a scotoma in at least 50 per cent of these people, according to the literature. Alternating strabismus is produced and this is a good sign treatment of the amblyopia has been thorough.

If an alternating squint results, it may be necessary to obtain parallel visual axes by surgery. If you do not produce parallel visual axes one of these eyes will again become amblyopic. If you cannot do it by occlusion or muscle training you must do it by surgery.

I am glad to hear Dr. Good mention the taking of vision in younger patients. I think we give up quickly in this attempt all too often. This is the time to get them, the time when treatment of the amblyopia will produce the quickest and probably best results.

Even before the age of 4 one can at least try to get a vision. We ask the mother to cut out a large E and make a game out of teaching the child this chart. The type of patient is important. Some parents would never successfully treat an amblyopic eye. This is especially true in dispensary patients. One out of 5 or 6 at the Infirmary would follow through, the rest will not.

Bifocals will help little until the visual acuity is improved. When the eyes are parallel at 20 feet and there exists a unilateral, abnormal convergence for near, we prescribe a 2.50 sphere bifocal segment for each lens.

FIND MEANS TO CONTROL MALARIA IN TREATMENT OF NEUROSYPHILIS

Investigators Determine When to Administer Thiobismol To Lengthen The Intervals Between Seizures Of The Disease

A solution to the problem of when to administer thiobismol so as to reduce the frequency of paroxysms or seizures of malaria when the infection is used as a treatment for syphilis of the central nervous system is reported in *The Journal of the American Medical Association* for June 19 by Martin D. Young, Sc.D.; Sol B. McLendon, M.D., and Roy G. Smarr, M.D., Columbia, S. C.

The three men explain that "one of the problems of the malarial therapy of neurosyphilis has been the need of a drug to reduce the frequency of the paroxysms without eliminating them altogether. Until recently no drug, including the common antimalarials (such as quinine), has demonstrated a reliable selective effect, the administration of the drug causing either no change of a total suppression of the paroxysms. In 1939 W. F. Schwartz found that thiobismol would convert Plasmodium vivax paroxysms from a quotidian (daily) periodicity to a tertian (alternate days) periodicity. Subsequently other workers confirmed this observation. However, the age (measured in the number of hours from the last fever peak) at which parasites are affected and therefore the best time to administer the drug have not been definitely established. . . . "

The principal species of malaria produce characteristic intervals between the seizures.

From their two year observations they say that: "It is possible, therefore, to change quotidian paroxysms of P. vivax to tertian by giving 0.1 or 0.2 Gm. of thiobismol, preferably the former amount, about twenty-four hours before or after the paroxysms to be eliminated. A convenient time to administer the drug is at the

fever peak. The quotidian occurence of paroxysms often taxes the patient so severely that it is impossible for him to undergo a full course of twenty paroxysms. Changing the paroxysms to a tertian occurence better enables the patient to withstand a full course of malaria. . . .

"Quite often quinine will not prevent the occurrence of paroxysms for several days after it has been started. It has been found useful here in terminating an infection to give an injection of thiobismol the day on which quinine is started. The thiobismol will usually prevent the occurrence of a paroxysm the following day. After that the quinine controls the infection.

"This combination of thiobismol and quinine might be found useful in malaria infections generally."

Their results with two other types of the disease, P. malariae and P. falciparum, were unsatisfactory.

NEW VACCINES MAY PROTECT MAN AGAINST TWO TYPES OF ENCEPHALITIS

The development of vaccines against the St. Louis and Japanese B types of epidemic encephalitis (sometimes called sleeping sickness) which were found effective in protecting mice and offer possibilities in protecting human beings against these diseases is reported in *The Journal of the American Medical Association* for June 19. The work was done by Major Albert B. Sabin, Medical Corps, Army of the United States, assisted by Carl E. Duffy, Ph.D.; Lieutenant Joel Warren, Sanitary Corps, Army of the United States; Robert Ward, M.D.; Lieutenant (jg) John L. Peck Jr., MC-V(S), U.S. N.R., and Isaac Ruchman, M.Sc., Cincinnati.

Major Sabin explains that "The St. Louis and Japanese B types of epidemic encephalitis occur in the late summer and early autumn and are caused by two immunologically distinct viruses. The most recent data favor the concept that these viruses exist in an animal reservoir from which they are transmitted to human beings by mosquitoes. Thus far the St. Louis virus has been isolated only in the United States and the Japanese B type virus in Japan, the Maritime District of the Far East of the Union of Socialist Soviet Republics and in 1940 in Peiping, China. . . . .

"At the suggestion of the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, a study was undertaken to determine whether or not it may be possible to develop suitable and safe vaccines for the protection of human beings against these types of epidemic encephalitis. . . . The objectives of the present investigation were to find vaccines, consisting of virus rendered noninfective by physical or chemical means, which would be capable of immunizing animals against infection by a peripheral route, comparable to that obtaining in nature, within a relatively short time and by means of a relatively small dose. Since, if such vaccines could be found, their use for human beings would be considered only during epidemics, and since the total duration of epidemics caused by either of these viruses may not exceed a period of six to eight weeks, it was important (a) that these vaccines be capable of conferring protection rapidly, i. e., at least within a week, and (b) that they should retain the desired potency after storage for long periods of time. It is believed that these objectives have been achieved. . . . ."

The vaccines developed by the investigators consist of uncentrifuged 10 per cent mouse brain suspensions in isotonic solution of sodium chloride in which the virus has been rendered noninfective by a 0.2 per cent solution of formaldehyde, the entire process of inactivation having taken place in the cold (2 to 3 C.).

The vaccines retained their original potency only when they were stored in the cold and properly treated to prevent undesirable reactions when used in human beings.

"Tests on human volunteers," Major Sabin says, "indicated that two doses of 2 cc. given three days apart could be administered without fear of local or systemic reactions and that this amount of vaccine contained enough antigen to stimulate the development of neutralizing antibodies in about 50 per cent of adults.

"It is conceivable that, in the face of a very severe developing epidemic of encephalitis proved to be caused by either one of these virus, it may be desired to test the effectiveness of such vaccines in protecting human beings against these diseases. It is obvious that no such tests will be possible unless sufficiently large amounts of these vaccines are prepared ahead of time and maintained under suitable conditions of stor-

age with repeated assays at appropriate intervals in readiness for such an emergency. . . . ."

He says the Russians had a successful experience with a similar vaccine in protecting against the spring-summer tick-borne encephalitis.

SOCIAL INSURANCE IN THE UNITED STATES

1. *What are some forms of social insurance in the United States?*

(a) Federal government: Old age and survivors' insurance and unemployment insurance under the Social Security Act; war risk insurance; old age pensions and unemployment insurance under the Railroad Retirement Act and Railroad Unemployment Insurance Act.

(b) State: Several states have workmen's compensation funds; Rhode Island recently enacted a sickness benefit law.

(c) Insurance companies: Life insurance and annuities; accident and health insurance; workmen's compensation insurance; hospital insurance; auto liability.

(d) Cooperative insurance (employee benefit associations and labor unions): Life insurance and accident and sickness benefits.

(e) Hospital associations (Blue Cross): Hospital service.

(f) Medical associations: Medical and surgical care.

2. *What is the history of compulsory social insurance legislation in the United States?*

In 1916 and later, bills were introduced in several states proposing compulsory state health insurance (socialized medicine and cash benefits).

Attempts were made in the 1920's to establish state old age pensions and unemployment insurance.

The "Committee to Study the Costs of Medical Care" in 1927 made a report based on a survey of public health, medical expense, and loss of wages due to illness.

President Roosevelt in 1933 appointed a "Committee on Economic Security" to draft the present Social Security Act. The original draft included the recommendation of provisions for disability (accident and sickness) coverage.

The Social Security Act was enacted into law in 1935 and amended in 1939.

In 1938 an "Interdepartmental Committee to Coordinate Health and Welfare Activities," which had been appointed by President Roosevelt, made a report asking for the extension of the Social Security Act to include compulsory health insurance.

1939-1940: Wagner and Capper Bills introduced in Congress providing for Federal health insurance.

1942: Eliot Bill introduced in Congress providing for extension of Social Security Act to include disability (accident and sickness) benefits and hospitalization benefits.—Insurance Economics Society of America, Chicago.

—Journal, Michigan State Medical Society

REMEDIAL AGENTS AND HEALTH

"One deplorable aspect of life in America is reflected in the advice we get over the radio concerning a great variety of remedial agents. Those who act on these suggestions are the victims of fear," Arlie V. Bock, M.D., Boston, declares in *Hygeia, The Health Magazine* for June.

"Because there are so many such victims the makers of liver pills, cathartics and aids for this and that ailment are able to make good financial dividends. We do not need to take drugs to keep healthy. . . . When you have a cold or an acute upper respiratory infection, your best friend is early and sufficient bed care. . . . Your bowels will move if you give them a chance, and of all things you do not need colon irrigations. Your liver has enormous capacity to look after itself, and your kidneys get all the flushing out they need if you are leading a reasonable type of life. . . . In short, simple, intelligent, everyday hygiene is all that you need to be concerned about in all these respects. When things begin to go wrong, get some needed rest, and when questions arise that you cannot answer try to consult your doctor at once instead of worrying about dire possibilities. . . ."

Christopher, our old gardener, had many a story of miracles performed by a venerable preacher in a nearby village.

"It is The Lord Himself who tells the saint man things," he whispered. "Every day, in the late afternoon, the door opens, the Lord comes in and they talk together."

"And have you seen this with your own eyes?"

Christopher frowned. "No, but the saint man told it to me himself."

"And you really believe him?"

"Do I believe him?" Christopher raised his voice. "How can you talk of such a thing? Do you suppose The Lord would come in every day and sit down and talk with a liar?"

— *Quote*

In a little southern town, a mob was fixing to lynch a man when a very dignified old judge appeared. "Don't he pleaded, "put a blot on this fair community by hasty action. The thing to do," he insisted, "is to give the man a fair trial and *then* lynch him."

Dave Lane in *Quote*.

House of Delegates

NOTE: For the complete minutes on the first session of the House of Delegates please refer to your July issue of The Journal, page 18.

SECOND SESSION

THURSDAY MORNING, MAY 20, 1943

The Thursday morning session was called to order at 9:30 A.M. by the President, Dr. E. H. Weld, Rockford.

THE PRESIDENT: I wish to introduce to you Dr. L. R. Woodward, President of the Iowa State Medical Society.

DR. WOODWARD: I had our meeting on April 29 and 30, and we cut it down to two days instead of the usual three. We had an unusually good attendance. We do not have as large a Society as you do, having only 2400 members. Seven or eight hundred usually attend and this year we had 600; it was a very successful meeting. We did not have a war program. About one-third of our doctors are with the armed forces. I came here to visit Illinois to get ideas and to listen to the program. I bring greetings from the Iowa State Medical Society. I hope your representatives will be with us next year.

THE PRESIDENT: The first order of business is the report of the Credentials Committee.

DR. E. P. COLEMAN: There have been certified a total of 137 delegates, 75 from downstate, 46 from Chicago Medical Society, and 16 members of the Council. There are present at this morning's meeting 60 delegates from downstate, 27 from the Chicago Medical Society, and 11 members of the Council, a total of 98. I move that this constitute the voting strength of this assembly at this time. (Motion seconded by Dr. Mather Pfeiffenberger, Alton, and carried).

THE PRESIDENT: The next order of business is the roll call.

THE SECRETARY: I move, Mr. President, that the attendance slips constitute the roll call. (Motion seconded by Dr. E. P. Coleman, Canton, and carried).

THE PRESIDENT: The next order of business is the approval of the minutes of the first meeting of the House.

(The Secretary read the minutes).

DR. D. B. POND, Chicago: I move that the minutes be approved as read. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

THE PRESIDENT: The next order of business is the election of officers. I will entertain nominations for President-Elect.

DR. I. H. NEECE, Decatur: I wish to nominate Dr. E. P. Coleman of Canton.

DR. E. E. DAVIS, Avon: As a delegate from Fulton County I wish to second the nomination of Dr. E. P. Coleman, and to move that the nominations be closed and that the Secretary cast the affirmative ballot for Dr. Coleman as President-Elect of the Illinois State Medical Society. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

The ballot was cast and the President declared Dr. Coleman elected.

DR. COLEMAN: Mr. President and Members of the Society: All I can say is, I want to thank you for the signal honor. I think the office is going to be very difficult but I will do my best.

THE PRESIDENT: Nominations are in order for First Vice-president.

DR. JOHN S. NAGEL, Chicago: I wish to place in nomination the name of Dr. Robert S. Berghoff, Chicago. (Motion seconded by Dr. Robert H. Hayes, Chicago).

DR. NAGEL: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Berghoff for first vice-president. (Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

The ballot was cast and the President declared Dr. Berghoff elected.

THE PRESIDENT: Nominations are in order for Second Vice-President.

DR. FRED MULLER, Chicago: I wish to place in nomination the name of Dr. Wade Harker, Chicago. (Seconded by Dr. W. S. Bougher, Chicago).

DR. C. E. WILKINSON, Danville: I move the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Harker for second vice-president. (Motion seconded by Dr. John S. Nagel, Chicago, and carried).

The ballot was cast and the President declared Dr. Harker elected.

THE PRESIDENT: Nominations are in order for Secretary-Treasurer.

DR. L. O. FRECH, Decatur: I would like to place in nomination the name of a man who has done the job in the past, is doing it now and will continue to do it, Harold M. Camp. (Seconded by Dr. W. E. Kittler, Rochelle).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and President instructed to cast the affirmative ballot for Dr. Camp. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The ballot was cast and the President declared Dr. Camp elected.

THE PRESIDENT: Nominations are in order for Councilors, first, the Third District, Dr. John S. Nagel, Chicago, retiring.

DR. C. H. PHIFER, Chicago: I wish to place in nomination the name of Dr. John S. Nagel, Chicago, who has had long service in the Council. (Seconded by Dr. D. B. Pond, Chicago).

DR. C. E. WILKINSON: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Nagel for Councilor of the Third District. (Seconded by Dr. G. C. Otrich, Belleville, and carried).

The ballot was cast and the President declared Dr. Nagel elected for a three year term.

THE PRESIDENT: Nominations are in order for Councilor of the Third District to fill the unexpired term of Dr. L. E. DAY deceased.

DR. WADE HACKER: I would like to place in nomination the name of Dr. E. W. Mueller. (Seconded by Dr. D. B. Pond).

DR. HAROLD W. MILLER, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Mueller. (Motion seconded by Dr. H. K. Scatliff and carried.

The ballot was cast and the President declared Dr. Mueller elected as Councilor for the Third District for a term of two years.

THE PRESIDENT: Nominations are in order for Councilor of the Fourth District, Dr. E. P. Coleman retiring.

DR. P. J. McDERMOTT, Kewanee: I wish to place in nomination the name of Dr. Charles P. Blair of Monmouth, who has been active in county work and also in state work. (Seconded by Dr. V. A. McClanahan, Aledo).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Blair. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

The ballot was cast and the President declared Dr. Blair elected.

THE PRESIDENT: Nominations are in order for Councilor of the Fifth District, Dr. Ralph P. Peairs retiring.

DR. JOHN McSHANE, Springfield: I wish to nominate Dr. Ralph P. Peairs to succeed himself. (Seconded by Dr. F. M. Hagans, Lincoln).

DR. G. C. OTRICH, Belleville: I move that the nominations be closed and the Secretary to

cast the affirmative ballot for Dr. Ralph P. Peairs. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

The ballot was cast and the President declared Dr. Peairs elected.

THE PRESIDENT: Nominations are in order for Councilor of the Seventh District, Dr. I. H. Neece retiring.

DR. L. O. FRECH, Decatur: I wish to place in nomination the name of Dr. I. H. Neece to succeed himself. (Seconded by Dr. J. S. Nagel, Chicago).

DR. P. J. McDERMOTT, Kewanee: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Neece. (Motion seconded by Dr. E. S. Hamilton, Kankakee, and carried).

The ballot was cast and the President declared Dr. Neece elected.

THE PRESIDENT: Nominations are in order for Councilor for the Eighth District, Dr. C. E. Wilkinson, retiring.

DR. J. J. LINK: I wish to nominate Dr. C. E. Wilkinson to succeed himself. (Seconded by Dr. E. E. Davis, Avon).

DR. L. O. FRECH, Decatur: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Wilkinson. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

The ballot was cast and the President declared Dr. Wilkinson elected.

THE PRESIDENT: Nominations are in order for delegates to the American Medical Association, three to be elected from downstate, Drs. Kittler, Wilkinson and Frech retiring, and one from Cook County, Dr. Hayes retiring.

DR. I. H. NEECE, Decatur: I would like to nominate Dr. L. O. Frech to succed himself.

DR. P. J. McDERMOTT, Kewanee: I would like to nominate Dr. Mather Pfeiffenberger, Alton.

DR. W. C. BLAINE, Tuscola: I would like to nominate Dr. C. E. Wilkinson, Danville, to succeed himself.

DR. W. E. KITTLER, Rochelle: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Frech, Pfeiffenberger and Wilkinson. (Motion seconded by Dr. E. E. Davis, Avon, and carried).

DR. W. S. BOUGHER, Chicago: I wish to nominate Dr. Robert H. Hayes, Chicago, to succeed himself. (Seconded by Dr. John S. Nagel, Chicago).

DR. V. A. McCLANAHAN, Aledo: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Hayes. (Motion seconded by Dr. C. M. Fleming, Rushville and carried).

The ballot was cast for both downstate and Cook County delegates and the President declared them elected.

THE PRESIDENT: Nominations are in order for Alternate Delegates to the American Medical Association, three from downstate to be elected for two years, Drs. Benard Klin, C. O. Lane and Harry Otten retiring, and two to be elected from Cook County, one for one year, overlooked last year, and one for one year to succeed Dr. A. H. Geiger deceased.

DR. O. L. BETTAG, Pontiac: I wish to place in nomination Dr. K. B. Rieger, Freeport.

DR. T. B. WILLIAMSON, Mt. Vernon: I wish to nominate Dr. C. O. Lane, West Frankfort, to succeed himself.

DR. E. S. HAMILTON, Kankakee: I wish to nominate Dr. Bernard Klein, Joliet.

DR. J. S. NAGEL, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Rieger, Lane and Klein. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

The ballot was cast and the President declared Drs. Rieger, Lane and Klein elected.

THE PRESIDENT: Nominations are in order for one alternate to take the place of Dr. Pfeiffenberger who has been elected a delegate.

DR. BERNARD KLEIN, Joliet: I would like to nominate Dr. E. C. Kelly, Peoria. (Seconded by Dr. C. E. Wilkinson, Danville).

DR. E. E. DAVIS, Avon: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Dr. Kelly. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The ballot was cast and the President declared Dr. Kelly elected.

THE PRESIDENT: Nominations are in order for alternate delegates from Cook County.

DR. P. R. BLODGETT, Chicago Heights: I wish to nominate Dr. Fred Muller, Chicago.

DR. R. H. HAYES, Chicago: I would like to nominate Dr. H. K. Scatliff, Chicago.

DR. W. S. BOUGHER, Chicago: I move that the nominations be closed and the Secretary instructed to cast the affirmative ballot for Drs. Muller and Scatliff. (Motion seconded by Dr. F. O. Fredrickson, Chicago, and carried).

The ballot was cast and the President declared Drs. Muller and Scatliff elected for one year.

THE PRESIDENT: The next order of business is the election of Standing Committees.

(Nominations were presented in each case, the Secretary instructed to cast the affirmative ballot for the following members of the Standing Committees, and they were declared elected by the President).

Public Relations: W. S. Bougher, Chicago, Fred Muller, Chicago, and H. W. Woodruff, Joliet.

Medical Legislation: James H. Hutton, Chicago, Robert H. Hayes, Chicago, Hermon H. Cole, Springfield.

Medico-Legal: P. R. Blodgett, Chicago elected for three years.
Heights, and R. O. Hawthorne, Kankakee, elected for three years.

Medical Education and Hospitals: H. O. Munson, Rushville, for three years.

Medical Benevolence: C. H. Hulick, Shelbyville, for three years, and H. M. Camp, Monmouth, for two years.

THE PRESIDENT: You must remember that the credit for starting this medical benevolence goes to Dr. Nagel. The Committee is doing a grand work and needs your cooperation. The members of the Committee do not want any doctor or doctor's wife or his immediate dependents to suffer because of lack of finances if it be possible for us to help them. The Medical Benevolence Committee, I want to assure you is trying to do what you want them to do, to help suffering doctors and their immediate dependents. If you do not report these cases the Committee cannot help them. If you do not investigate these cases when you are asked to, then its hands are tied.

The next order of business is fixing of the per capita assessment for 1944. It is now eight dollars, with remission of service men's dues.

DR. E. S. HAMILTON, Kankakee: I am speaking in behalf of the Council. The Council requests that the per capita tax remain the same as for the last few years and that the dues be remitted for those in service. I so move. (Motion seconded by Dr. C. E. Wilkinson and Dr. I. H. Neece, and carried).

THE PRESIDENT: The next order of business is the selection of a meeting place for the 1944 annual meeting. At the downstate caucus it was recommended that this matter be left to the Council because of the unsettled conditions at the present time. It is hard at this time to select a meeting place for our next annual meeting. I would like to have concurrence of this group of Delegates in that recommendation.

DR. MATHER PFEIFFENBERGER, Alton: I move that the selection of the next meeting place as well as the feasibility of holding a meeting be left to the discretion of the Council. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

THE PRESIDENT: The next order of business will be the reports of Reference Committees, and action on same.

Committee on Reports of Officers

Presented by Dr. G. Henry Mundt, Chicago.

Report of the President: We commend to you the report of the President of this Society. There is one feature which we think should be reiterated, that is the importance of continuing the history of the Illinois State Medical Society to which he refers in the next to the last paragraph of the report.

Report of the President-Elect: The report is thoroughly approved.

Report of the Secretary-Treasurer: The report of the Secretary-Treasurer demonstrated to the Committee and I think to the House, the wisdom of combining the offices of Secretary and Treasurer. If you are not acquainted with the financial report we advise that you look it over. We have no comments to make.

Report of the Chairman of the Council: A man usually rises to his obligations; the Chairman of the Council has done that and we commend his report.

DR. MUNDT: I move the acceptance of this report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried.

Report of Committee on Reports of Councilors
Presented by Dr. A. H. Bitter, Quincy.

Your reference committee on Report of Individual Councilors published in the handbook for the House of Delegates wish to make the following report: After careful perusal and study of these reports the outstanding sentiments are reflected by the following:

First, medical men throughout the state are giving their loyal support to the armed forces of our country, while those remaining in civilian practice are carrying on with efficiency so that even though there is an acute shortage of physicians in many counties the civilian population is receiving adequate medical care. This we feel should be a source of pride to the entire membership of the Illinois State Medical Society.

Second, that the Post Graduate and refresher courses have been enthusiastically received and well attended, and it is hoped that the hard working committees who have made these meetings possible will continue their good work.

Third, there undoubtedly exists a universal discontent throughout our state relative to the unfair treatment to our physicians for treating old age recipient cases and aid to dependent children. We hope that the committee handling this problem will formulate a satisfactory and acceptable plan.

Fourth, our councilors throughout the state have indicated by their reports that they have given unstintingly of their time, effort and advice to the members in their respective districts. This we know has been done at great personal sacrifice, and the committee wishes to commend them for their accomplishments.

Fifth, several of the councilors have reported poor attendance and infrequent meetings held by many of our county societies. It is recommended that councilors exert every effort to improve this state of affairs.

Sixth, several councilors have again called our attention to the continued effort of government agencies to infringe on the rights of private physicians, and warn us against this distinct threat. However, they offer no constructive solution. It, therefore, behooves all of us to be vigilant so that no group can set themselves up as a bureaucracy dictating the policies of the medical profession.

In concluding this report we salute all colleagues now in the uniform of our country, and also hats are off to the men on the home front.

Respectfully submitted,
WADE HARKER
A. M. VAUGHN
A. H. BITTER, Chairman

DR. BITTER: I move the acceptance of this report. (Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Report of Committee on Reports of Council Committees

Report of Committee "A"

Presented by Dr. A. B. Owen, Rockford

Report of the Educational Committee: This report is indeed commendable, especially in the face of the difficulties which have arisen in this war year with the difficulty of obtaining speakers and transportation facilities being as they are. We especially commend the articles appearing in the county papers throughout the state and the radio talks which have been given in spite of the radio stations closing their service to the medical profession at large. The material going out under the "Do You Know" column is of paramount importance, and your committee is especially grateful for the untiring effort of the Educational Committee and especially for its cooperation with the office of Procurement and Assignment.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. O. W. Rest, Chicago, and carried).

Report of the Scientific Service Committee and the Report of the Post-Graduate Committee: This report is exceedingly worth while, especially the post-graduate conferences. Your committee feels that this should be extended, and also the plans which are being made to conduct ward walks and clinics within the Chicago area, and they should be advertised in the Illinois Medical Journal, and as far as possible the names of each clinic so conducted should be announced each month in the Illinois Medical Journal.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

Report of the Medical Economics Committee: This committee has given a comprehensive survey of the general social trends facing us both

of foreign and domestic origin, and we wish to commend their foresight and their grasp of the situation in stating in their report as they do, quote —

> "It is further stated that the possible scope of private general practice will be so restricted that it may not appear worth while to preserve it."

and the further report, (1) The National Resources Planning Board Reports; (2) The Group Hospitalization Plan; (3) The Medical Service Plan, and not the lease, the decision of the Supreme Court.

We, your committee, feel that we should recognize the social trend of the times, but by the same token we are certain that complete social security can never be obtained by every member of every community. Further, we are not sure that complete social security would not completely destroy the morale of any country, in which it might be adopted. We are not in complete sympathy with any of the social security plans now under discussion, and further, we believe they should be studied thoughtfully and the medical profession give its approval to these plans only when merited.

DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

Report of the Medico-Legal Committee: The Medico-Legal Committee report is a short one and it is stated that inasmuch as many of our members are in the armed service, fewer suits or threats of suits have been instituted. It is thought by your committee that a certain number occur without being reported to the Medico-Legal Committee. We believe it would be desirable for purposes of historical record to suggest to the members of this Society that they report all such cases and that files of these records be kept in the archives of the Society in order that they may be studied by future members of the Medical-Legal Committee.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Report of the Committee on Arrangements: We feel that the success of this convention has been due to the selection of such a competent chairman and a well functioning committee, and we feel that the Society should be congratulated for the orderly manner in which the convention has been conducted.

(DR. OWEN: I move the adoption of this portion of the report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Respectfully submitted,
A. B. OWEN, Chairman
OSCAR HAKINSON
ARIEL WILKINSON

DR. OWEN: I move the adoption of the entire report. Motion seconded by Dr. I. H. Neece, Decatur, and carried.

THE PRESIDENT: I want to commend this Committee on a very excellent report.

Report of Committee "B"
Presented by Dr. Frank F. Maple, Chicago

The Fifty Year Club has a membership of 287 who have completed fifty years in the practice of medicine in Illinois. Attention is called to all county societies that all such men whether or not they are now members of the State Society are eligible to membership if sponsored by their county society. This reviewing committee recommends that each county survey its older practitioners and enroll those eligible men in the Fifty Year Club.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. T. B. Williamson, Mt. Vernon, and carried).

Report of Committee on Industrial Health: This Illinois Committee, a unit in the Council on Industrial Health of the American Medical Association, must undertake a job of real importance. Wartime needs have emphasized those sound health measures which are so valuable in times of peace.

A functioning committee in each county is the answer in arriving at the objectives as summarized. County programs and papers on general programs have carried these objectives to the industrial physician.

Full cooperation by the Illinois State Medical Society has aided in the furtherance of this program. Its work, its membership and continuation are recommended by this reviewing committee.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. J. H. Hutton, Chicago, and carried).

Report of the Maternal Welfare Committee: Covering the report of the State Maternal Welfare Committee, your reviewing committee is very familiar with the work of the Maternal Welfare group. This group, now in its sixth year, has accomplished so much in the education of expectant mothers, the routine prenatal care by the physicians, the investigation of maternal and neo-natal deaths and the encouragement of post-graduate and refresher courses among physicians.

Each county now has its own welfare group with the recommendation that they cooperate with lay groups to further the program of lay education, this county group to make their own investigation of fetal and maternal deaths.

The committee has frequently recommended the adequate number of obstetric and pediatric subjects on all state and county programs and the recommendation is being followed over the state.

Three brochures have been prepared by the Welfare Committee:

1. Routine care of expectant mothers.
2. Advice to expectant mothers.
3. What price abortions?

All have been accepted by our State Council, have been published and are ready for free distribution.

Six years of work by this committee has brought to Illinois a maternal mortality rate as low as any state in the union, and its program of performance is sought after as a pattern by maternal health groups of other states.

(DR. MAPLE: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Respectfully submitted,
FRANK F. MAPLE, Chairman
C. O. HIGHSMITH
P. J. McDERMOTT

DR. MAPLE: I move the adoption of the report as a whole. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Report of Committee "C"

Presented by Dr. R. K. Packard, Chicago

Your Reference Committee as appointed by the President consisted of three members and due to the absence of Dr. Hartman at the opening session, all three were from Chicago. The Committee met at 11 A.M., Wednesday and your Chairman suggested to the Committee the advisability of asking the President to name four more delegates to this Committee, all to be downstate delegates. The Committee concurred in this recommendation and accordingly the President appointed W. M. Hartman, W. I. Lewis, J. H. Gernon and W. E. Kittler. The original Committee felt that inasmuch as this was largely a downstate controversy, that they should have the majority representation on the Committee.

Your full Committee convened at 2 P.M. to discuss the reports referred. That portion of the report of the Chairman of the Council dealing with *The Committee on Medical Care of the Public Assistance Recipients,* was considered. The Chairman of the Council stated that the Committee recognized the fact that the compensation of physicians under the present plan was not sufficient and that efforts were being made to correct this. The Chairman of the Council further stated that this was a very controversial subject and urged all delegates to read the report of this Committee, and further reported that the special sub-committee recommended by the House last year, and later appointed by the Council to consider the matter of fees and report back to the Council had been appointed but that their report had not been received at the time of the publication of his report, thus it would be necessary for him to make a supplementary report. The Chairman of the Council made a supplementary report at the opening session stating that the sub-committee's report had been received, and presented to the Council and that the Council had passed the following motion:

"That the report of the sub-committee, Advisory Commitee on Medical Care for Public Assistance Recipients, did not confine itself to the purpose for which it was appointed and that we take no action regarding this report. However the Council endorses the activities of this Committee and commends them for their efforts. Motion carried."

The Chairman of the Council then briefly discussed the report of the sub-committee. Your Reference Committee commends the Chairman of the Council for his interest, vision and candor in this portion of his report.

The sub-committee's report was then referred to this Committee. To clarify whether or not the sub-committee had or had not confined itself to the purpose for which it was appointed, your Committee referred to the action of the House last year and to the action of the Council.

Dr. K. B. Rieger made the following motion:

"I move, Mr. President, that the President of this Society dismiss the present committee on Public Welfare and Old Age Assistance and that the President appoint a new committee composed of seven general practitioners from the northern, central and southern parts of the state to meet with the Welfare Deparment of the State and to arrange for a more equitable fee schedule, etc., this committee to consist of T. B. Williamson, Mt. Vernon, O. L. Bettag, Pontiac, H. D. Junkin, Paris, G. H. Edwards, Pinckneyville, J. O. Cletcher, Tuscola, William Scanlon, LaSalle, and K. B. Reiger, Freeport." Dr. Harlan English seconded the motion. Dr. A. H. Bitter made the following motion:

"I move that this motion be tabled." Seconded by Dr. J. J. Pflock, and carried.

Dr. L. E. Day made the following motion:

"I would like to make a motion that the names of these gentlemen be submitted to the Council for consideration and possible appointment." Seconded by Dr. R. H. Hayes and carried.

At the meeting of the State Council held May 31, 1942 the resolution was considered, also Dr. Reiger's resolution, and after much discussion the following sub-committee was appointed to determine whether or not a more equitable fee schedule could be developed. The Committee was Dr. K. B. Reiger, Chairman, Dr. O. L. Bettag, Dr. G. H. Edwards, Dr. William Scanlon, and Dr. Harlan English.

The sub-committee's report was then read by your Reference Committee. The report is composed largely of an opinion from the Attorney General relative to the Pauper Act and the act relative to Aid to Dependent Children and the Old Age Assistance Act. The Committee finally recommends: It is the opinion of the sub-committee that the Council of Illinois State Medical Society concur with the Vermilion County Medical Society and the Leglislative Committee of the Illinois State Medical Society in the passage of Senate Bill 233 and House Bill 241 which are the result of the efforts of the sub-committee through their attorney, Hon. W. W. Acton. The Committee further states that additional recommendations cannot be given at this time, as additional data from the Department of Public Assistance and the Illinois Public Aid Commission is pending. The sub-committee further suggests that efforts be directed by the Council to gather this data for submission to the Welfare Committee of the Illinois State Medical Society and the sub-committee on O.A.A. and the A.D.C. for further study and recommendation. Your Committee commends the sub-committee ior their interest.

Your Reference Committee recommends that inasmuch as there was no recommendation relative to fee schedules and a recommendation for sponsoring legislative action and that inasmuch as this report was directed to the Council, that it be returned to the Council for their final consideration and disposition.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. R. H. Hayes, Chicago).

DR. O. L. BETTAG, Pontiac: I move that this portion of the report be not approved until the full report of the sub-committee can be presented to this House. (Motion seconded by Dr. K. B. Reiger, Freeport).

THE PRESIDENT: The motion of Dr. Packard having been duly made and seconded, the motion made by Dr. Bettag is out of order, and I rule that the motion of Dr. Packard stands.

DR. R. H. HAYES, Chicago: Inasmuch as the portion of the report for which Dr. Packard requested approval refers to instructions of the sub-committee to the Council and the port dealt with those matters, the first motion should stand.

(The motion was put and carried, with three or four delegates voting no.)

Report of the Committee on Medical Care of Public Assistance Recipients: The report of this committee was then considered. This is an exhaustive report covering the subject in great detail and giving much valuable statistical information. It also reviews the many problems that have arisen, also the changes in the various acts covering paupers and assistance to old age

dependents and aid to dependent children. Every member of this House should read this report as should every doctor in the state who is interested in this program.

Your Committee reviewed the correspondence between the Committee and the various public agencies. It reflects a close contact and sensible and sane approach to a problem that interests the state, the receipents and the doctors. Your Committee reviewed carefully the questionnaire sent to the county medical societies and finds that the great majority are having little or no trouble under the present plan. The outstanding criticism was relative to payment of doctors' and hospital bills in last illness. It is evident that when the county medical societies have made an honest and intelligent approach to the problem that they have been able to solve it with the exception of payment for last illness.

The supplementary report made by the Chairman of the Committee is briefly as follows:

Mr. Brandon, Director of the Department of Public Welfare and Mr. Hilliard of the Illinois Public Aid Commission, and Mr. Clark, Superintendent of the Division of Public Assistance, all agreed that their departments would sponsor legislation and support it, to make direct payment for physician and hospital care in last illness. Mr. McKibben, Director of Finance, by telegram concurred in this statement.

On May 17, the Division of Public Assistance agreed to raise the price of an office call from $1.00 to $1.50, this to become effective June 1, 1943.

The Chairman further recommended that the Committee continue to work and cooperate with these agencies.

Your Reference Committee commends the report and is appreciative of the vast amount of time and energy they have given to the matter. Your Reference Committee recommends that the recommendation of the Committee in both its original and supplementary report be concurred in.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon).

DR. O. L. BETTAG, Pontiac: We have just reviewed Mr. Brandon's statement. You will note they will be glad to back any legislation. There is nothing on record that they will do anything for the payment of final illness. This is the first time that the state is beginning to move.

(Motion carried unanimously).

Report of the Inter-professional Relations Committee: The Chairman after a brief statement believes it advisable to postpone the work of this Committee during the duration of the war. Your Reference Committee recommends that this be referred to the Council.

(DR. PACKARD: I move the adoption of this portion of the report. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Respectfully submitted,

W. I. LEWIS
WALTER E. KITTLER
G. E. JOHNSON
F. H. MULLER
J. H. GERNON
W. M. HARTMAN
R. W. PACKARD, Chairman

DR. PACKARD: I move the adoption of the report as a whole. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Report of Committee "D"

Presented by Dr. N. S. Davis III, Chicago

The report of the *Committee on Tuberculosis* shows that excellent progress is being made throughout the state outside of Cook County in providing facilities for the diagnosis, isolation and treatment of patients with active and open tuberculosis. As the tuberculosis problem is particularly acute in Cook County where there are numerous areas in which both the incidence and mortality rates are high, it seems strange that no attention was given to this section. Cook County also needs at least 1500 additional beds for the isolation of tuberculosis patients and might well have one or more tuberculosis districts organized in the "county towns" under existing laws. The funds now available for the Chicago Municipal Tuberculosis Sanatarium are inadequate for existing needs and make no provision for further expansion.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The report of the *Cancer Control Committee* shows that it is on the job and working in close

cooperation with the Cancer Committee of the Chicago Medical Society, the Chicago Cancer Committee, Inc., the Division of Cancer Control of the State Department of Public Health, and the Women's Field Army to promote early diagnosis and treatment of cancer.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The report of the *Venereal Disease Control Committee* shows that it has been working effectively with local and state agencies to bring these diseases under control.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

It seems strange that the Council did not appoint a substitute for Dr. Murphy and a new chairman when he entered the Army last fall. The work of so important a Committee as that on *Crippled Children's Clinics,* supported in part by the Federal Government, should not be permitted to lapse because its chairman entered the Army.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

From its report, the *Committee on Mental Hygiene* has continued its good work in connection with the problems of mentally handicapped children. Should it not also consider some of the problems of draftees who have not been accepted by the armed services because of mental disorders, alcoholism and other problems of adults in need of diagnosis and treatment of mental disorders.

(DR. DAVIS: I move the adoption of this portion of the report. Motion seconded by Dr. F. O. Fredrickson, Chicago, and carried).

Respectfully submitted,
W. C. BLAINE
H. F. BENNETT
N. S. DAVIS, III, Chairman

DR. DAVIS: I move the adoption of the report as a whole. Motion seconded by Dr. W. S. Bougher, Chicago, and carried.

Reports of Editor; Medicine and the War; and Scientific Work

Presented by Dr. L. O. Frech, Decatur.

Report of the Editor: The Illinois State Journal has undergone some marked changes during the past year, which have greatly improved the appearance of the official mouthpiece of the Illinois State Medical Society. It has been modernized to the extent of making it an up to date periodical and perhaps the best State Medical journal in this country.

It is gratifying to your committee to note the changes made in color and design. Rearrangement has been effected to render greater accessibility to the contents and reading matter and the type and print in such as to make it easily readable.

The advertising section has improved greatly. We notice more full page and more ads in color which lends greatly to attractiveness. More advertising has been added and as far as we are able to determine none but ethical and reliable concerns have been permitted use of the columns of the Journal. Advertising in amount has much to do with financial returns, and from the quality and quantity of ads the past year must have produced increased financial returns. The policy of the editorial board in asking cooperation of the American Medical Association on advertising is to be commended.

New departments have been added which are both interesting and instructive, and we believe that the closer the Journal touches its members the better the Journal will be. The contents of this medical publication, to be most practical and of highest interest, should cover as many aspects of the practice of medicine as feasible, but we would warn against monopoly by any specialty, or specialties, as it should be kept wholly in the province of general medicine.

Your Committee feels that the machinery as set up at present for the publication of the Journal is both systematic and efficient, and with an editorial board to determine policies, a publication committee to advise as to content, and an editor to assemble and publish, the best that can be had in medical publication will come to each member of the State Society each month, and that each member will appreciate the brevity of the subject matter.

We commend the editor and his board for the good work they are doing, and wish to express the appreciation of the members of this Medical Society on behalf of the same.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. P. J. McDermott, Kewanee, and carried).

Medicine and the War: Your Committee wishes to state that too much praise is impossible for those who have given of their untiring efforts to formulate the policies and carry out the necessary measures to provide the medical manpower from the State of Illinois to meet the requirements of the Army, Navy, and Marines of the United States, and at the same time not deplete the physicians to the extent that the civilian population will suffer from lack of proper medical care. This has been accomplished not without timidity on the part of those having the measures in charge, as they have been obliged to sit in judgment on their brother practitioner's needs, both for the armed forces and their local communities.

The State Selective Service and the State Procurement and Assignment Service working with and under the war manpower commission of the government, have closely cooperated to the advantage of all groups, and the profession of Illinois should be proud of its accomplishment in fulfilling its quota of qualified doctors and still not neglecting to take care of the civilian requirements.

Your Committee is pleased to state that there have been but few instances in which physicians of qualified age have used every means at their disposal to keep out of service that they may profit by the decrease in physicians in their communities. There should be no slacker to disgrace the medical profession of Illinois.

As a result of the war situation there has arisen some agitation concerning physicians from adjoining states being allowed to practice in Illinois without an Illinois license. This would require amendment to the Medical Practice Act, and your Committee recommends that it be condemned. We believe that there still are sufficient Illinois physicians to adequately take care of the public and that any locality depleted of physicians has been and can be serviced by the re-location of medical personnel where the necessity arises.

Your Committee is of the opinion that the educational requirements and the medical curricula of our schools should receive careful scrutiny by the faculties and the profession. The current trend by the Government to shorten the course of training and the subsidizing of pre-medical and medical students has the unsavory glamor of reverting to the lowering of the standard of medical education with a resulting lower grade of medical service to the public. Therefore, too much emphasis cannot be put on maintaining the high standard required today by the State of Illinois. Also maintaining the independence of the State, the independence of its individuals and the maintenance of State rights.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

Scientific Work: Your Reference Committee on scientific work desires to state approval of location and general arrangements of this 1943 meeting of the Illinois State Medical Society. The program of meetings has been altered to conform with more simplicity, less confusion and greater convenience to the attending members. We like it better. The sections have partially lost their identity and have been infused in one homogenous mass of general medicine. Inasmuch as the specialist class is quite small compared to the class of general practitioners, and inasmuch as the State Medical Society represents medicine in Illinois, most of which is general medicine, we feel that the section meeting programs should be along lines which integrate the specialties into a part of general medicine rather than separating them and by so doing making them a branch instead of a component part, of medicine.

If our programs can be arranged, as they tend to be this year, into units whereby the general practitioner can, on one program, get a little bit of many subjects instead of much of a specialty, the State Society will thereby be tendering him a service which will better fill his needs and one which will prepare him in a better way to meet the problems of his every day service. As a time saving measure, and as a method of preventing many men from missing an interesting paper, it will work admirably. We recommend more general and less specialty programs for this Medical Society.

We feel that symposiums and round-table discussions with an opportunity for the attendants to ask questions not only makes an

interesting metting, but a most profitable one.

As to the matter of papers, it is our opinion that ultra-scientific discussions should not be presented because of their lack of value in a practical way. Problems of research have no value, as presentations, unless the matter of research has been extensive; can show good results in various hands, and has been applied to human beings in a clinical procedure. Unless Research can meet these standards their findings have no proper place on the Society program. New methods of diagnosis or application we do not include in this category. We suggest that it might be feasible to survey the membership on their attitude toward, and their desire of, material for program presentation.

General Sessions we deem to be desirable for the reason that outstanding men from other areas should have a place on our program. The speakers on general session programs should be men of high standing in their profession and leaders in their particular fields. General sessions should be open to the public, but the discussion should be one closely allied to the practice of medicine, and fields of semi-scientific, social or economic application. General scientific sessions should be closed to the public and should be discussions entirely scientific in nature.

We believe the scientific exhibits to be a very useful tool in education. We recommend the continuance of same. They should not be open to the public except in displays where they pertain to preventive medicine or to the health procedures for the public welfare. The scientific exhibits this year are up to the usual standard, but because of extraneous circumstances are fewer in number. We recommend, for the convenience of members and as a time saver, that the scientific exhibits be grouped in sections according to the phase of medicine to which they belong.

(DR. FRECH: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

Summary: Your Committee approves the report of the editor; evaluates the Illinois Medical Journal as the best of State Medical Journals, and the machinery by which it is published as well organized and efficient.

We endorse that which has been done by our various State Committees in gearing Illinois medicine to the war program; in approving programs of cooperation in the war efforts; and through procurement and assignment, in furnishing Illinois' quotas of medical men to the armed forces. We hope and beg that the civilian population will not be forgotten.

We approve the meeting place of the 1943 meeting; the program as rearranged; and the general arrangements of our host — The Chicago Medical Society. This being done under difficult and trying conditions makes the success of this meeting all the more apparent.

Respectfully submitted,
G. L. KAUFMAN
ROBERT H. HAYES
L. O. FRECH, Chairman

DR. FRECH: I move the adoption of the report as a whole. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

THE PRESIDENT: I want to commend Dr. Frech's Committee on what I consider a very excellent and worthwhile report.

Report of Committee on Reports of Standing Committees

Presented by Dr. P. R. Blodgett, Chicago Heights

Referred to this Committee were the reports of the following Standing Committees: Public Relations, Legislation, Medical Education and Hospitals, Medico-Legal, Archives, and Benevolence.

Public Relations: We commend the Committee for the aggressive prosecution of one of our most aggravating problems, that of certain insurance companies attempting to set their own fee scale for professional services rendered. The fact that physicians' bills are paid as rendered is a real contribution to the cause of organized medicine.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. Robert H. Hayes, Chicago, and carried).

Legislation: This Committee brings to the doctors bills presented to the legislature which affect the practice of medicine. At this session of the Illinois General Assembly attempts are being made to weaken the medical practice act of Illinois. These attempts are made by the various cults at every session. The fact that our medical practice act has withstood so many attacks is due to two factors: (1) the

fundamental sincerity and vision of the great majority of our legislators in both houses of the Illinois General Assembly, and (2) to the great foundation in contact and education developed through the years with members of the legislature by the late Dr. John R. Neal. The work which he did remains as a real challenge to the members of that important committee. The efforts of this committee must be redoubled at this critical time for we must realize that legislation may be presented at any time which may profoundly affect the future status of practice.

The attempts of cults to secure the same recognition accorded the medical profession is as old as the cults themselves. In the activities of the federal government, we can safely trust the Surgeon Generals of the Army, Navy and Public Health Service to guide the professional service under their respective directions.

The Committee reviews but does not indorse House Bill 1857 which provides for the commissioning of women physicians in the Army and Navy Medical Corps. This Reference Committee is of the opinion that this bill in Congress should be actively supported by the profession. With thousands of our young women in the auxiliary corps of the Army and Navy, certainly partriotic women doctors should be accorded the privilege to serve. These Women's Auxiliaries have their own women's staff and line officers and should have women medical officers.

We commend the committee for their efforts in so carefully analyzing the various bills presented to the Illinois General Assemblies. We commend the committee for enlisting the services of Mr. John Neal, who through the years was so thoroughly tutored by his illustrious father.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Medical Education and Hospitals: This Committee has well analyzed the problem confronting our medical schools under war pressure. Every effort must be made to keep medical education on its present high standard of training. The committee points out the problems that we all find in our hospital practice, namely a shortage of interns and an increased number of patients with fewer staff members. This committee is to be commended.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. T. B. Williamson, Mt. Vernon, and carried).

Medico-Legal: This Committee has always done a splendid job. The decision of the House of Delegates, a few years ago, to put legal defense entirely in the hands of insurance companies was not altogether a blessing. It was a fine thing for the insurance companies, but it left many members of the profession without legal defense in malpractice suits. The advice of this Committee will prevent many suits being filed, which is worth a great deal, even though the doctor is covered by insurance. We commend the Committee and paricularly its chairman, Dr. J. R. Ballinger, who for many years has rendered a great service to this Society.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. P. J. McDermott, Kewanee, and carried).

Archives: This Committee is undertaking a very important work. The suggestions made in their printed report should be carried out, namely, the collection of essential information by representative members in each conuty society. The history writing function of this Committee will be greatly hampered unless complete accurate information is received, given the proper support, this Committee will give us a real hisory of the profession in Illinois.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

Benevolence: This Committee is doing a very happy job for all of us. The aid given under our plan carries none of the coldness of organized charity. It is helping to make a hard road easier. We are as happy to help as the receiver is thankful. This Committee asks that the Secretary-Treasurer be made a member of the Committee. This will greatly facilitate the work to be done. That request should be granted. This Reference Committee recommends that the secretary of the county society, or some member designated by him, be held responsible for reports and followups on anyone needing or receiving aid from this fund; this will aid the Secretary of the State Society to keep all rec-

ords in order and in preventing delays. We commend the Committee for the work they are doing with particular emphasis on the work of its active Chairman, Dr. John S. Nagel.

(DR. BLODGETT: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Respectfully submitted,

W. I. LEWIS
W. A. FRYMIRE
P. R. BLODGETT, Chairman

(DR. BLODGETT: I move the adoption of the report as a whole. Motion seconded by Dr. E. E. Davis, Avon, and carried).

Report of Committee on Miscellaneous Business
Presented by Dr. C. O. Lane, West Frankfort

Woman's Auxiliary: The Committee endorses wholeheartedly the work carried on by the Auxiliary. Such work as a substantial contribution to the Benevolence Fund, the cooperation and assistance to the Red Cross in securing blood banks, the teaching of First Aid classes, the donation of sewing kits, the assistance given in stamp and bond drives, the sponsoring of scholarship for student nurses, and other endeavors mentioned in their report. This is a very vital and important contribution and we commend them for this work. The Committee wishes to encourage them in the further organization of their Society in counties not yet organized, and suggest that the various County Medical Societies cooperate with them in this work.

It is suggested by this Committee that the dues of members whose husbands are in the service be remitted for the duration of such service.

(DR. LANE: I move the adoption of this portion of the report. Motion seconded by Dr. I. H. Neece, Decatur, and carried).

The War Participation Committee: The action of this Committee in an advisory capacity in the many difficult problems arising as a result of our war effort is, in the opinion of this Committee, very important. We commend them on their work along this line, and advise that they continue to function in the work delegated to them by the House of Delegates of the American Medical Association.

(DR. LANE: I move the adoption of this portion of the report. Motion seconded by Dr. W. S. Bougher, Chicago, and carried).

Respectfully submitted,

C. O. LANE, chairman
BEN E. FILLIS
S. M. GOLDBERGER

DR. LANE: I move the adoption of the report as a whole. Motion seconded by Dr. I. H. Neece, Decatur, and carried.

THE SECRETARY: I wish to announce that the registration at this meeting totaled 2600.

THE PRESIDENT: I wish to take this opportunity to present the Chairman of the Arrangements Committee and the newly elected first Vice-President, Dr. Robert S. Berghoff.

DR. BERGHOFF: Mr. Chairman and members of the House of Delegates: This just like my assignment as General Chairman is an unexpected honor. I shall take just two minutes to say this to you sincerely and humbly; this job looked like a big job in the beginning. It could have been a big job, except that we picked out twenty-two members of the Committee who with Jean McArthur, Esther Fraser, and the old war horse, Harold Camp, made this just as simple as could be. Last night, at the conclusion of the marvelous dinner and the speech of that human dynamo, left an impression with me that I shall carry throughout my life. I thank you all. In war time and in three days of probably the worst weather Chicago has had for years — just like California where it never rains — we ran up 2600 registrants.

THE PRESIDENT: We come now to the report of the Committee on Resolutions.

DR. FRANK P. HAMMOND, Chicago: We have had presented to us twelve resolutions, and we are now presenting them to this august body with our recommendations.

1. *THE DEVELOPMENT OF A STRONGER NATIONAL ECONOMIC AND LEGISLATIVE POLICY GOVERNING THE PRACTICE OF MEDICINE.*

(See Page 72)

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. G. E. Johnson, Chicago, and carried).

3. *PAYMENT BY THE ILLINOIS STATE MEDICAL SOCIETY OF ANNUAL STATE AUXILIARY DUES FOR EACH MEMBER-WIFE OF PHYSICIANS IN SERVICE.*

(See Page 73)

DR. HAMMOND: Your Committee recommends the adoption of this resolution and I so move. (Motion seconded by Dr. A. B. Owen, Rockford).

I have been asked how many members in the Auxiliary. There are 936, about 33 per cent or 312 are in service. This resolution only covers the dues the county societies must pay to the state; they are not asking that local dues be remitted. Twenty-five cents goes to the National organization and seventy-five cents to the state.

DR. E. S. HAMILTON, Kankakee: I think all of us are heartily in accord with the resolution, but having to do with finances I think it automatically is referred to the Council. I would suggest that it be referred to the Council with the recommendation that it be done. (Seconded by Dr. J. J. Pflock, Chicago).

DR. HAMMOND: The Committee accepts the amendment. (Motion to refer the resolution to the Council, carried).

4. *CAMPAIGN FOR HYGIA*

(See Page 73)

DR. HAMMOND: The Committee recommends that the last paragraph be deleted, namely, "with the request that this resolution be read at the next stated meeting and similar action taken to cooperate in this health education campaign by widening the distribution of Hygeia, The Health Magazine." We feel that the presentation to the county societies should be voluntary and not a mandate. As revised the Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. D. B. Pond, Chicago, and carried).

5. *CITIZENSHIP A REQUISITE FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF ILLINOIS*

(See Page 74)

DR. HAMMOND: The Committee recommends that the last paragraph in this resolution be deleted, and with this revision the Resolution Committee recommends the adoption and I so move. (Motion seconded by Dr. J. J. Pflock, Chicago, and carried).

6. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241*

(See Page 74)

7. *ENDORSEMENT OF HOUSE BILL 437 PERTAINING TO ADEQUATE LEGISLATION RELATIVE TO PURE FOODS, DRUGS AND COSMETICS*

(See Page 75)

DR. HAMMOND: The Committee recommends that the last paragraph be altered to read:

"Therefore, be it resolved, that the Illinois State Medical Society, in convention assembled, indicate the desirability of its membership giving individual support and endorsement of the bill for passage by the Legislative Branches of the State of Illinois."

With this revision the Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

May I ask Dr. Harlan English to report on Resolutions 2, 2A, 6 and 8.

DR. ENGLISH: Resolutions 2, 2A, 6 and 8 were considered controversial resolutions, I will read them.

2. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241 KNOWN AS THE LUCKY-EDWARDS BILL.*

(See Page 72)

2A. *ENDORSEMENT OF SENATE BILL 233 and HOUSE BILL 241*

The Livingston County Medical Society offers the following resolution to the House of Delegates of the Illinois Medical State Society, assembled in Chicago, Illinois, May 18, 1943:

Therefore be it resolved, that the Livingston County Medical Society approves and endorses Senate Bill 233 and House Bill 241 as introduced by Senator Lucky and Congressman Edwards.

Be it further resolved, as these bills are sponsored by the Vermilion County Medical Society that we urge the Illinois State Medical Society to follow our action in endorsing these bills and to use every means possible to secure passage of the same.

8. *INCREASE IN FEES PAID TO PHYSICIANS FOR SERVICES RENDERED RECIPIENTS OF THE OLD AGE ASSISTANCE PROGRAM*

(See Page 75)

DR. ENGLISH: Resolutions 2, 2A, and 6 concern Senate Bills 233 and House Bill 241. The Committee feels that since the Senate Bill 233 has had a committee hearing in the Senate and was reported out of the senate committee for favorable passage and has had two readings that it might be inadvisable for this governing body to officially go on record as endorsing legislation under discussion. This does not mean that each delegate or doctor in Illinois should not, if he so desires, use every means to secure the passage of such legislation. The Resolution Committee feels that the House of Delegates should leave such official discretion to the Society's Legislative Committee which has already approved and recommended individual membership support for the passage of these bills. Therefore, the Resolutions Committee recommends that resolutions 2, 2A and 6 be not officially adopted but referred to the Legislative Committee for their use.

I move the adoption of this portion of the report. (Motion seconded by Dr. E. E. Davis, Avon).

DR. K. B. RIEGER, Freeport: I am stunned to hear the report given by Dr. English in this particular instance. As a member of the subcommittee that has been working on this bill, I would like to explain a thing or two before we go on to this resolution. In the first place, the sub-committee could not under any circumstances discuss the question of fees with the Department of Public Relations or Public Assistance because they were not officers of the State Medical Society and they had no power to act. All we could do was to take an attorney with us who properly interpreted the law. This interpretation was verified by the opinion of the Attorney General of the State of Illinois. We then hoped that the Department would agree on the interpretation when they asked for clarification, which they did. Following that we went back to our representative offices and homes and had another conference. We found that Dr. English, who is a member of the Vermilion County Medical Society, sponsored House Bill 241 and Senate Bill 233. If these bills are passed and they will be passed if they obtain the assistance and help of the Illinois State Medical Society as a whole, the payment for services to recipients of old age assistance and to dependent children will be referred back to the supervisor in charge of each county. The Committee felt that it would be easier to deal with the local supervisor than with the State of Illinois. I am quite surprised that Dr. English who is a member of the Vermilion County Medical Society that sponsored these two bills would come up here and recommend that the Illinois State Medical Society should go on record as not sponsoring these bills. This is one way in which the medical profession of Illinois is going to have opportunity to get adequate fees. We talk about socialized medicine. Here is an opportunity to take it away from the state and place it in the hands of the doctors. We are going to remain in the low field of one dollar and fifty cents.

DR. HAMMOND: I feel certain that the delegates appreciate the Committee's report that we do not appose nor do we recommend passage of these bills. We do not ask the delegates to do so. We feel that legislative matters should go through the regular channels. If the doctor who just spoke would listen well, the Committee recommended that this go through the usual channels of the Legislative Committee. The Legislative Committee then will pass on to the membership of the Illinois State Medical Society their recommendation.

DR. RIEGER: If you will recall the brochure that you received from the Illinois State Medical Society, the Society has already passed on these bills and asked that they be passed.

DR. HAMMOND: There is just one other thought. Let us assume that this is controversial, that this Society went on record in favor of this bill and the bill is vetoed, then the Society is on the spot. If it is held in the Legislative Committee, it is a different matter. We are not urging against the bill. The support of this bill should come from the Legislative Committee.

DR. EDMOND BECHTOLD, Belleville: I believe we should be consistent. If we are going to work this way on medical assistance we should take the same stand on the county health

unit. The State Department of Public Welfare is presenting propaganda throughout the state of Illinois and the State Society endorses the Public Welfare's propaganda.

DR. FRANK DENEEN, Bloomington: In my county they voted out having anything to do with old age assistance and dependent children and said it would have to be taken care of by the supervisor. It looks to me as if this is also the supervisor's work.

DR. BECHTOLD: The gentleman is perfectly right. To a great extent it is the supervisor's work but apparently the Director of Public Welfare does not think so. He apparently does not accept the opinion of the Attorney General. It is necessary to hit him on the head to let him know that we must act on this properly.

THE PRESIDENT: Are you ready for the question? Do you understand the question?

(Because of the answer, "No," the President asked Dr. English to re-read the motion).

DR. P. J. McDERMOTT, Kewanee: What would this Senate Bill give us anyway? Does it take care of old assistance recipients when they die, that is the question?

THE PRESIDENT: It refers it back to the township for terminal illness.

DR. CHARLES H. PHIFER, Chicago: Those two bills include emergency medical care and not necessarily terminal illness.

THE PRESIDENT: The question is called for and I will ask for a standing vote.

Seventy-six voted for the adoption of the Committee's recommendation and four against it. The motion was carried.

DR. ENGLISH: Concerning resolution No. 8, The Committee feels that since part of the aim of this resolution is reported to have been accomplished, namely office visit fees have been, by agreement, raised, as of June 1, from $1.00 to $1.50 and the matter of other fees is still being discussed, it would be inadvisable to recommend this resolution at the present time. I move that this portion of the report be adopted. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

DR. HAMMOND: We come now to Resolution No. 9.

9. *OFFICERS, TRUSTEES OR FACULTY MEMBERS OF SCHOOLS WHICH DO NOT SATISFY THE "ESSENTIALS OF AN ACCEPTABLE MEDICAL SCHOOL" OF THE AMERICAN MEDICAL ASSOCIATION.*

(See Page 75)

Your Committee gave more than usual consideration and discussion to this resolution. We could see that there were some far-reaching ramifications and also some inconsistencies. In the first place, we observed that graduates from the schools indicated in the resolution are accepted as members of the American Medical Association. We are aware that by and large graduates of the schools referred to are accepted as members of the component state (county) medical societies. We have observed that not infrequently graduates of the schools referred to are being honored by being made president of their component medical societies. We are cognizant of the fact that graduates of the schools referred to in the resolution are sitting here as members of this House of Delegates. Another important fact discussed by the Committee is that a resolution of this type which is so far reaching has many amplifications and ramifications, and we wish to recommend that before a resolution of this kind is accepted by the House of Delegates it should be presented to the component societies. Therefore, your Committee recommends that the resolution be not adopted, and I so move. (Motion seconded by Dr. O. W. Rest, Chicago).

DR. N. S. DAVIS III, Chicago: I would say that if the recommendation of the Committee is carried, the constitution of the State Society should be amended. It is not elevating the standards of the State Society to have as members, faculty members or officers of schools that do not come up to the standards of the medical schools adopted by the American Medical Association. When a school has been in existence for five years it is not the fault of the graduates that the school is not up to par, it is the fault of the men who are members of the faculty. Those men are not living up to the constitution of the Illinois State Medical Society if such things are allowed to go on.

(Motion was carried with one opposing vote).

10. *PUBLICATION OF MINUTES OF COUNCIL MEETINGS*

(See Page 76)

DR. HAMMOND: Again your Committee

gave considerable discussion to this resolution. In the first place it appears to the Committee that there is no official standing to the delegate body. When we adjourn today, we are adjourning *sine die*. We are no longer delegates. In the second place, we feel that publishing the complete minutes and discussions of the Council would be not only cumbersome and lengthy, but would perhaps take up the larger part of the Journal. Thirdly, it is the recommendation of the Committee that the Council should use its discretion. At times when information should go out to the Society, a short abstract could be printed if the Council felt that the information is beneficial to the Society. I move that the recommendation of the Committee that matters of this kind be left to the discretion of the Council be approved. (Motion seconded by Dr. W. E. Kittler, Rochelle, and carried).

DR. J. S. NAGEL, Chicago: What is the recommendation of the Committee?

DR. HAMMOND: The Committee recommends that the resolution be not adopted, that it be left to the discretion of the Council to print from time to time a short abstract of information that is beneficial to the Society.

(Motion carried).

11. *ABUSES OF MEDICAL TESTIMONY*

Whereas, the questionable activities of some members of the medical profession, in medico-legal matters, particularly in reference to court appearances and especially to testimony given in personal injury suits, have aroused the suspicion of both the medical and legal professions that some individual physicians have, in collusion with and through the cooperation and encouragement of certain lawyers, stretched the truth at times and on occasion have resorted to dishonest statements while in court, under oath, thereby subjecting both the medical and legal professions generally to much undeserved yet highly unfavorable criticism by the public at large; and

Whereas, the many different procedures tried, in the past, to overcome this activity, have met with indifferent success; and

Whereas, a plan of action adopted by the Minnesota State Medical Association, and now known as the Minnesota Plan, has, through close cooperation with the Bar Association proven highly successful in combatting this undignified and unethical practice; and

Whereas, the Chicago Medical Society, on Tuesday, October 13, 1942, at a regular meeting of the Council took steps to institute a procedure to overcome this evil; therefore be it

Resolved, that the Minnesota plan, or some suitable modification of it, should be studied and adopted by the Illinois State Medical Society.

DR. HAMMOND: The Committee recommends the adoption of this resolution, and I so move. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

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12. *MEDICAL CARE OF CIVILIANS IN WAR TIME*

Whereas, because of the number of medical men gone into the armed forces certain persons or organization for reasons best known to themselves have used this fact as an excuse for widespread propaganda to the effect that people are suffering or are likely to suffer for want of adequate medical care, and

Whereas, such propaganda is false and misleading because investigation has shown that people are deprived of care not because of its lack but because of this propaganda to the effect that medical care cannot be had. Such propaganda results in restraining people from calling the doctor when they are in need.

Therefore, be it resolved, that the Illinois State Medical Society announce to the citizens of Illinois that careful investigation has shown that all cases alleged to have suffered from lack of medical care, need not have suffered except for their disinclination to call the doctor, and further announce to the citizens of Illinois that the physicians of this state have so integrated their cooperative efforts that no one need suffer for lack of adequate care, and that we shall continue to supply to the citizens of this state adequate medical care in spite of this proaganda. Care may not be so promptly rendered nor so plentiful as in happier times, but it will continue to be adequate.

DR. HAMMOND: This resolution was written for and approved by the Council. Your Committee recommends its adoption. I so move. (Motion seconded by Dr. Charles H. Phifer, Chicago, and carried).

In conclusion, the Resolutions Committee would like to have you pass a motion to instruct the Secretary, Dr. Camp, to give official notes of thanks to all responsible for the arrangements of this 1943 annual meeting (an all inclusive motion). I so move. (Motion seconded by Dr. I. H. Neece, Decatur, and carried).

I move that the report of the Committee as a whole be adopted. (Motion seconded by Dr. R. H. Hayes, Chicago, and carried).

THE PRESIDENT: We have a member of our official family here who is the executive secretary of the Legislative Committee. I would like to have you meet him and know him. I would like to have a few words from Mr. John W. Neal.

MR. NEAL: I have no prepared report to present to you. The handbook carried the general report of the legislative activities to date. I believe in my absence on Tuesday, Dr. Hayes supplemented that report. I am sorry I was unable to be here until this morning. As luck would have it two of our most important measures were scheduled for hearing on Tuesday. They were completed and will be presented next week.

On the legislative picture the measures presented by the non-healing cults were the only ones with which we were concerned. There were a number of other matters with which we were concerned. It is my desire, as it is the desire of every member of the Committee, to carry out the wishes of this body and of the Council.

I would like to close by saying that a great many of you are probably acquainted with your legislators. I have had a great many members of the Legislature in Springfield tell me that they are much impressed by the contacts from doctors in their home towns. As I have said before, the average legislator does not give a tinker's dam what the Illinois State Medical Society thinks about a given problem, but he is very much interested in what the individual doctors in his home community think when he comes up for the next election. It is for this reason that I have hounded you to contact your congressmen so your Committee can come through with a clean slate. Naturally I am anxious that this my first year in Springfield should be a success and that I should come through without losing any bills.

THE PRESIDENT: We come to unfinished business and the Secretary tells me there is none, so we will pass to new business.

DR. O. L. BETTAG, Pontiac: I would like to call on Dr. Hamilton for his opinion on the bill before the Legislature on the county health unit and his reason for it.

DR. E. S. HAMILTON, Kankakee: Gentlemen, that is a very difficult question to answer. Sometimes many things enter into judgment. I think that is true in life, true in the practice of medicine, and true in what you decide about your position on various topics. This bill was discussed for many months and it was the opinion of the Council that there was little or nothing to be gained by opposing this county health unit bill. In addition to its popular appeal which certainly is not debatable, it was decided by the Council that it was not exactly advisable to oppose anything which has for its stated object the improvement of the health of the people of Illinois. Too often the medical profession is accused of sponsoring legislation and backing activities for the benefit of the medical profession and not for the benefit of the people of the state of Illinois. For many years the Council has taken the position that the first thing to be considered and discussed and the thing of paramount importance in all deliberations and in all opinions of the Council of the Illinois State Medical Society must be the people of Illinois. Second comes the physicians of Illinois and third, the Illinois State Medical Society. All these things entered into the decision to endorse this bill. I know what Dr. Bettag has on his mind. It has been in my mind as long as it has been in his. We are all suspicious of the encroachment of state medicine and those interested read it into every bill. It was the studied opinion of the Council that the bill should not be opposed. Since that was it I, as Chairman of the Council, concur with it.

This is an extemporaneous answer to this question. If I had a week to get ready I probably could give you a better one. I do not know whether I have answered your question. I have tried to be frank. If you want any more feel free to talk to any member of the Council, not only the Chairman.

DR. BETTAG: Thank you Dr. Hamilton.

DR. JAMES H. HUTTON: I wish this House of Delegates might pay tribute to two people who helped to make this meeting a success. Dr. S. D. Zaph has been responsible for seeing that all members registered. Mrs. Fraser is largely responsible for the success of the President's dinner. She has done almost the impossible of making the money balance. I move a vote of thanks to both of them. (Motion seconded by Dr. W. S. Bougher, Chicago).

THE PRESIDENT: The Chair would like to amend that motion to include a rising vote of thanks to Dr. Zaph, Mrs. Fraser and Dr. Hutton. We are voting on the amendment that thanks be given to Dr. Hutton. (Amendment carried). We are voting on the original motion. (Motion carried by a rising vote).

The next order of business is the election of Emeritus members.

THE SECRETARY: It is rather unusual to have such a long list and all of them from the Chicago Medical Society.

Dr. Charles A. Albrecht, 1820 S. Halsted Street, Chicago

Dr. Frederick O. Bowe, 845 Buena Avenue, Chicago

Dr. K. A. Danell, R. 8, Box 156, Phoenix, Ariz.

Dr. George J. Dennis, Drake Hotel, Chicago

Dr. A. E. Dennison, 21 N. Parkside Avenue, Chicago

Dr. E. K. Findlay, 2231 E. 67th Street, Chicago

Dr. Robert H. Good, 517 Thatcher Avenue, River Forest, Ill.

Dr. James Graybeal, 7114 Normal Blvd., Chicago

Dr. J. J. Hood, 5222 W. 24th Street, Cicero, Ill.

Dr. Findley D. John, 180 N. Michigan Avenue, Chicago

Dr. John M. Lang, 843 Monroe Street, River Forest, Ill.

Dr. John Leeming, Palmer House, Chicago

Dr. Thomas I. Motter, 231 N. Kenilworth Avenue, Oak Park, Ill.

Dr. Alfred N. Murray, 6117 Kenmore Avenue, Chicago

Dr. Ward E. Potter, 136-26th Avenue, N.E., St. Petersburg, Fla.

Dr. W. F. Scott, 200 S. 18th Avenue, Maywood, Ill.

Dr. Louis Schultz, 617 William Street, River Forest, Ill.

Dr. W. N. Senn, 1255 N. State Street, Chicago

Dr. Joseph Semerak, 1171 S. Oak Park Avenue, Oak Park, Ill.

Dr. Irving J. Straus, 5238 Kenwood Avenue, Chicago

Drs. Potter, Senn and Bowe were elected to retired membership by the Chicago Medical Society. Dr. J. J. Hood also desires affiliate Fellowship in the American Medical Association and if this House so recommends we will present his name at the meeting of the House of Delegates of the A.M.A. on June 7. I would like to move that these emeritus memberships be granted and that Dr. Hood be recommended for affiliate Fellowship in the A.M.A. (Motion seconded by Dr. C. E. Wilkinson, Danville, and carried).

DR. O. L. BETTAG, Pontiac: I wish to express my deep appreciation for the heroic work done by the chairman of the sub-committee. He has worked untiringly in behalf in its behalf. This was done almost without support of anyone but the committee. I wish you to know that as a result of his efforts that medical forms have been simplified. There is now in the Division of Public Assistance a truer appreciation of the general practitioner's point of view. There is some discussion on and there is a possibility of payment for terminal medical services and also some discussion of direct payment to the ones who participate. I move a rising vote of thanks to Dr. K. B. Rieger. (Motion seconded by Dr. V. A. McClanahan, Aledo, and carried).

THE SECRETARY: It is always customary at the close of the meeting of this House of Delegates to read the recommendations of the Committee on Awards.

Group I: *Scientific*: The bronze medal was awarded to Edith L. Potter and F. L. Adair, Chicago Lying-in Hospital and the Illinois Department of Public Health, Chicago, for their exhibit on "Erythroblastosis Fetalis."

Certificates of Merit were awarded to the following:

1. The Women's Field Army of the American Society for the Control of Cancer, for the exhibit, "The Value of Mice in Cancer Research."
2. E. W. Hagens, Department of Otolaryngology, Northwestern University Medical

School, Chicago, for the exhibit, "Anatomical Presentation of Bronchial Tree from Endoscopic Standpoint."

3. V. D. Lespinasse and Victoire Lespinasse, Department of Urology, Northwestern University Medical School, Chicago, for the exhibit, "Studies on Kidney Function; Extravasation of Urine; Bladder Regeneration."
4. I. Schour, D.D.S., and H. G. Sarnat, D.D.S., University of Illinois, Chicago, for the exhibit, "Oral Manifestations of Occupational Origin."

Group II. Practical and Educational: The bronze medal was awarded to George B. Callahan, Waukegan, for the exhibit, "Unifying Medical Services in Lake County. — A Plan and Practice Using Navy, Army, Veterans' Administration, Industrial and Civilian Medical Personnel and Material."

Certificates of Merit were awarded to the following:

1. G. Henry Mundt, Chicago, for the exhibit on "Epidemic Kerato-Conjunctivitis."
2. F. H. Falls and Miss C. S. Holt, University of Illinois College of Medicine and the Illinois Department of Public Health, Chicago, for the exhibit on "Hemorrhage."
3. Harold A. Vonachen, Peoria, for the exhibit, "Caterpillar Tractor Company Health Program During Time of War."
4. K. E. Barber, Children's Memorial Hospital, Chicago, for the exhibit, "Pyelography in Retroperitoneal Tumors in Children."

THE PRESIDENT: I personally want to thank the men who put on this scientific exhibit and I know all of you do. It represented a lot of work in these times. It represented a large expenditure of money. We thank you.

At this time I want to thank the members of the Illinois State Medical Society and I want to thank the House of Delegates for the honor they have given me by asking me to be your President for the past year. It has been a lot of fun. I really have had a good time going around the state meeting the different men whose names I did not remember very well. So if I do not call you by name it will not be for any lack of respect on my part. I still have not accumulated that kind of knowledge that enables me to have a receptive memory for names. I have enjoyed this year serving as your President. I have not done such a very good job. I made a lot of mistakes. I ask you to forgive me for those mistakes. I have just gone along and tried to do the best I could, attending the different meetings and trying to be educated up to the position that I now relinquish with a lot of feeling to another man who spells his name with four letters. He did not come from Michigan but he did come from a farm. He was born in a farming community up at Milton, Wisconsin where sometimes they farm but I had a suspicion that George sometimes went fishing a good many times in those lakes. Having got kicked out of the Wisconsin schools he went to the Alfred Academy at Alfred, N. Y. and after getting pretty well educated he got his B.S. degree at little Milton College at Milton, Wisconsin, and later his M.A. degree at the same College. He got his M.D. degree in 1909 at the University of Illinois. He is a Fellow of the American College Surgeons, he is certified by the American Board of Surgery in the Founders Group, he is associate professor at the University of Illinois College of Medicine, and attending surgeon to the West Suburban Hospital. Lastly, he is a darn good surgeon, a darn good doctor, and a darn good friend. I am very happy and very proud and very glad to turn the gavel over to him at this time because I know your interests will be looked after as well as they possibly can in every respect. He will give unstintingly of his service and advice. It has been a pleasure to work along side of him this last year. It is a great pleasure to present to you, Dr. Post, this gavel. I will put into your buttonhole this badge designating you as President of the Illinois State Medical Society.

DR. POST: Mr. President and Members of the House of Delegates and of the Illinois State Medical Society: While appreciating the very great honor which all this entails, I feel still very humble. I feel that it carries with it great responsibility which no man himself is able to carry. I am unable to carry it myself, and I bespeak from you the heartfelt interest and support which you have accorded to my predecessor. I shall need it. Without it no man can succeed in any such office. The responsibility of it overwhelms me more than it did a year ago,

when I received the vote that gave it to me. Therefore, bespeaking all support and interest I will proceed to further the various interests as they appear before us, hoping that in all we do we may accomplish most constructive things for the Society and with your help and as your servant and not in the ordinary official capacity, I hope to succeed. It is a matter of work for all of us. We must keep forging forward as we have in the past. I am asking you for support.

DR. J. S. NAGEL, Chicago: I had a few remarks to make. From time immemorial, the memory of man running not to the contrary, and like a babbling brook I run on forever — for many years it has been my privilege to extend a rising vote of thanks to the retiring president for his kindly, efficient and fair manner in which he conducted the business of the House of Delegates. Gentlemen, I ask a rising vote. (Motion carried by a rising vote).

DR. POST: After extending also to Dr. Weld your thanks and my thanks for what he has done in this particular session, I call for a motion for adjournment.

DR. V. A. McCLANAHAN, Aledo: I move we adjourn *sine die*. (Motion seconded and carried).

The House adjourned at 12:30 P.M.

FIND PENICILLIN EFFECTIVE WHERE SULFONAMIDES FAILED

Investigators Report On Results Of Its Use In Three Patients With Gonorrhea That Was Resistant To Older Treatment

Effective use of penicillin in 3 patients with gonorrhea, in whom the infection was completely resistant to what might be considered adequate treatment with sulfonamide preparations, is reported by Wallace E. Herrell, M.D.; Edward N. Cook, M.D., and Luther Thompson, Ph.D., Rochester, Minn., in *The Journal of the American Medical Association* for May 29.

Penicillin is a recently discovered substance, obtained from a mold, which has been found to have remarkable powers in combating certain types of infections.

The three men say that their experimental evidence "immediately suggests that penicillin should prove effective in the treatment of clinical infections due to these sulfonamide resistant bacteria. . . .

"Because of the limited amounts of penicillin available, we feel that penicillin therapy [treatment] should be reserved and studied further in those cases in which the infection is resistant to the accepted forms of treatment now being used. . . ."

They found that the several strains of the organism "are inhibited completely in fairly high dilutions of an active form of penicillin. Bacterial cultures reveal that the number of organisms is decreased greatly at the end of one or two hours' contact with penicillin. Between the second and third or third and fourth hours in contact with penicillin no viable [living] organisms were found. . . .

"The complete absence of toxicity following the intravenous [into a vein] administration of pyrogen [fever-producing] free penicillin, the lack of any discomfort to the patient and the rather rapid disappearance of the clinical symptoms have been observed in three cases of sulfonamide resistant gonorrheal infections. In all the cases reported, in addition to the clinical response noted, negative bacterial cultures were obtained sometime between seventeen and forty-eight hours after the institution of penicillin therapy."

The investigators point out that penicillin, in addition to being antibacterial for the organism, is excreted rather rapidly in the urine. They found that "between a third and a half of the material is excreted through the urinary apparatus. This is, of course, highly desirable in the treatment of infections of the type being considered. The high degree of solubility of the material also permits it to reach the involved tissues readily."

TRICHINOSIS FROM BEAR MEAT

A case of human trichinosis following the eating of bear meat is reported in *The Journal of the American Medical Association* for May 22 by Robert S. Westphal, M.D., Albany, N. Y. It is generally considered, he says, that 90 per cent of human trichinosis occurs as a result of the ingestion of pork. Although several infections from bear meat have been reported from California, Dr. Westphal believes his is the first case from New York state.

Honor Roll

DOCTORS IN SERVICE WHOSE NAMES HAVE NOT APPEARED IN EARLIER LISTS

BY NAME AND COUNTY

Ascher, John Peter, Cook
Arnold, Nita Mieth, Cook
Balcke, Louis A., Tazewell
Barak, Herbert G., Lee
Baratz, J. Joseph, Cook
Barber, Kent W., Adams
Barnes, Broda O., Cook
Behrents, Ellis G., Cook
Beecher, M. C., Knox
Bellucci, John B., Cook
Benedek, Tibor, Cook
Benensohn, Solomon J., Cook
Berard, LeRoy H., Cook
Berger, Edward M., Cook
Berger, Louis, Cook
Berlin, Louis, Cook
Bernstein, Elmer I., Cook
Block, Walter Eugene, Cook
Bolman, R. Morton, Cook
Bonebrake, Harold V., Cook
Borden, George, Adams
Bos, Louis H., Cook
Brady, John Morrison, Cook
Brennan, John F., Cook
Brinton, Edward S., McDonough
Brown, Hyman N., Cook
Bussey, Frederick N., Cook
Caddick, Richard P., Adams
Cardenas, Valentin O., Cook
Carter, C. L., LaSalle
Chern, Bernard Victor, Cook
Cinelis, Adolph Richard, McHenry
Cole, Bart, Peoria
Colletti, Michael J., Cook
Cook, Franklin, Cook
Day, Ernest C., Cook
Deering, David M., Lake
DeFeo, Herman F., Cook
DeMetrovich, Frederick F., Cook
Demski, Casimir, Cook
Deplewski, Leo Mark, Cook
Ditowsky, Samuel Irwin, Cook
Dorr, Edward M., Cook
Dostal, Lumir E., Cook
Douglass, Thomas C., Cook
Draeger, Louis A., Cook
Engle, D. E., Du Page
Etherton, Fred S., Jackson
Fauley, Gordon B., Cook
Feldman, Edward G., Columbus, Ohio
Feldser, A. Vernon, Cook
Ferrell, Robert V., Saline
Fill, Leon, Cook
Finkle, Albert M., Cook
Finola, George C., Cook
Finsky, Morris, Cook
Fliesser, Werner, Vermilion
Flint, Weldon Collins, Peoria
Foster, John Wesley, Cook
Foltz, Herbert Leo, Cook
Foulke, Lawrence E., McHenry
Francona, Anthony, Cook
Frankel, Leonard, Cook
Freriks, Dick J., Cook
Friedman, Louis B., Cook
Friefeld, Nathan, Cook
Garnello, John M., Cook
Gearhart, Dwight I., Cook
Gehring, Harold Walter, Champaign
Gilson, Benjamin, Brooklyn, N. Y.
Gish, E. R., Saline
Gladstone, Lee, Cook
Glassman, Frank, Cook
Goodfriend, James, Cook
Gray, O. Earle, Cook
Greeley, Paul W., Cook
Greene, Warren W., Cook
Grissom, Raymond F., Cook
Grove, Jacob S., Cook
Guest, Samuel I., Cook
Gutheil, Byron, Cook
Haas, John P., Cook
Hammond, J. F., Cook
Harter, Joseph A., Cook
Heritage, Wade F., Cook
Hildebrand, Eugene Jr., Cook
Hirchfield, S. A., Lake
Hirsh,Edwin I., Cook
Hoffman, Philip, Cook
Hoover, Allen H., Cook
Hubrich, Leon R., Cook
Huffman, John W., Cook
Humm, John J., Cook
Hunter, Arthur F., Cook
Hurwitz, Reuben, Cook
Ingram, Myron I., Cook
Iseberg, Russell G., Cook
Izbicky, Naftula, Ogle
Izzo, Joseph L., Cook
Jaczynski, Hilbert A., Cook
Jaffray, David S., Cook
Jenkins, Alexander, Cook
Johnson, Carl A., Cook
Johnson, H. G., Clark
Johnson, Spencer, Kane
Johnson, William E., Cook
Jonas, William P., Cook
Jones, Marshall H., Cook
Jones, Thomas D., Cook
Jordan, John W., Cook
Just, Joseph H., Cook
Kallal, Thomas, Cook
Kannapel, William Oren, Peoria
Kass, Harold M., Cook
Kapov, Kozme Francis, Cook
Katzenstein, Frederick Carl, Marion
Kearney, Richard D., Cook
Keeley, Robert E., Cook

Klawans, Harold L., Cook
Knopp, Maurice N., Cook
Knudson, Joel Wm., Cook
Kodl, Francis, Cook
Koneski, Chester F., Cook
Koziol, Stanilaus M., Cook
Kuentz, Ransom E., Du Page
Kunsch, L. J., Du Page
Kushner, Abraham, Cook
Lambertus, Paul T., Adams
Landy, Ernest, Union
Laury, Everett W., Cook
Laymon, Gayle Harold, Champaign
Leahy, Thomas E., Cook
Lehner, Robert Harold, Cook
Lenit, Harold W., Cook
Lerner, Benjamin H., Cook
Lerner, Milton
Leshin, Norman, Cook
LeVan, Franklin P., Cook
Levin, Samuel A., Cook
Levy, Robert Charles, Cook
Lewandowski, Henry C., Cook
Lichenstein, M. E., Cook
Liebling, Joseph, Cook
Linkowski, Izrael, Cook
Lipnik, Benjamin, Cook
Loverde, Albert A., Cook
Lukasek, Alfred E., Cook
Lundgoot, L. E., Cook
Lustgarten, Earl M., Cook
MacLeod, Sidney James, Cook
Manelli, Louis A., Cook
Manelis, Samuel L., Cook
Mansowit, David, Cook
Marks, Jacob L., Cook
Marks, Louis M., Cook
Markoutsas, George C., Cook
Martens, Edward John, DuPage
Maschmeyer, R. H., Peoria
Mason, Lorne Wilfred, Cook
Mastri, Aquil, Cook
Mathis, Alvin Leroy, DuPage
McDonald, James Alexander, DuPage
McGuire, Philip R., Cook
McGrath, Philip R., Peoria
McLennon, Peter J., Cook
McMahon, John V., Cook
McMillan, Robert G., Cook
Miller, Walter, Will
Minnema, Clarence, Cook
Mead, Newton C., Cook
Mehlman, Jerome S., Cook
Miller, C. O., Cook
Miller, Donald S., Cook
Modzikowski, Thaddeus, Cook
Morris, Charles I., Cook
Moore, Jean W., Vermilion
Mosny, Stephen D., Cook
Mrazek, Charles, Cook
Mullen, Vincent F., Fulton
Munn, Alfred A., Cook
Murphy, Cornelius E., Cook
Neiman, Aaron, Cook
Nicholson, Charles T., Calhoun
Nock, Wesley S., Cook
Nowak, John M., Cook
Oldberg, Eric, Cook
Olivieri, Ernest Pasquale, Cook
Olson, Franklin A., Cook
Packard, James Wight Jr., Cook
Pallasch, Gervaise P., Cook
Palmisano, Dominic A., Cook
Palutsis, Stanley R., Cook
Parker, Charles D., Cook
Paull, Murry M., Cook
Pavlin, Otto B., Cook
Pavluk, Peter, Cook
Peffer, John R., Cook
Peters, Clifford H., Cook
Petrone, Rosco Edward, Cook
Petrone, Joseph A., Cook
Pfeiffer, Carl F. H., Adams
Pierce, Mila I., Cook
Pilot, Jean, Cook
Piper, Charles H., Cook
Pixley, John Stage, DuPage
Poucher, George Edward, Cook
Prusait, Walter, Cook
Puris, Abraham M., Cook
Rackleff, M. M., Adams
Rappaport, Henry, Cook
Regnier, Walter O., Tazewell
Reich, Walter J., Cook
Rheingold, Joseph, Cook
Richburg, Louis A., Cook
Richter, Irving B., Cook
Rideout, Wm., Stephenson
Ritter, Israel Irving, Cook
Roberg, Norman B., Cook
Robovits, Frank E., Jr., Cook
Roe, Charles T., Cook
Rosenberg, Harry, Cook
Rubenstein, Boris Benj., Cook
Rubenstein, Joseph, Cook
Rubert, Samuel Rubin, Cook
Rubin, Simon S., Cook
Ruda, Laurence, Cook
Russell, Joseph, Cook
Rutherford, Robert H., Macoupin
Ryder, Bruce Ivan, Marshall
Sankstone, Manning I., Cook
Sarnoff, Herbert S., Cook
Sbertoli, Maurice William, Cook
Schapiro, Isadore E., Cook
Schick, Armin F., Cook
Schmehil, Edward J., Cook
Schriver, J. S., Cook
Schroeder, Harold M., Livingston
Schwartz, Merle Harold, Cook
Schweiger, Leo J., Cook
Sculley, Jesse C., McHenry
Secunda, Herman Harold, Vermilion
Segal, Morey M., Cook
Sehring, George H., Will
Seid, Ben, Cook
Seidelmann, Otto Frank, Cook
Shapiro, Bernard, Union
Shurtz, William G., Cook
Simon, Albert J., Cook
Simonaitis, John J., Cook
Sirles, Wayne Pulley, Williamson
Sittler, William W., Cook
Slattery, Thomas, Cook
Slevyan, Albert H., Cook
Smith, Everett J., Cook
Snyder, Morris, Cook
Somerville, William, Cook
Stack, Eugene A., Cook
Staton, Younger A., Cook
Steinle, Clifford John, Cook
Stenn, Fred, Cook
Sternes, Frank Charles, Cook
Stevens, Roland E., Jr., Cook
Stites, Hugh D., Mercer
Stone, Joseph G., Cook
Stormont, Marion F., Cook
Strauss, Herman A., Cook
Stucker, Fred J., Cook
Sullivan, Francis John, Cook
Sullivan, Clifford P., Cook
Susser, Maxwell, Cook
Sykes, Robert Hart, Cook
Talbert, W. A., Macon
Tann, Leo, Cook
Tarry, George W., Cook
Thegze, Charles Gregory, Cook
Thill, John C., Jr., Cook
Thompson, N. A., Saline
Toomajan, Harry, Cook
Tourney, Guy Louis, Adams
Towle, Victor M., Cook
Tucker, Joseph, Cook
Twente, George Edward, Alexander
Udesky, Isadore C., Cook
Vacin, Milo E., Cook
Van Verst, Paul H., Cook
Vitacco, John Joseph, Cook
Wagner, Ben E., Cook
Waldmann, Leonard F., Cook
Waldo, Proctor C., Cook
Warnick, Edward George, Cook
Weinberg, Jack, Cook
Whitaker, Walter M., Adams
White, Raymond B., Cook
Wippern, Virgil, Cook
Woltman, George R., Cook
Yazarian, Armen N., Peoria
Zeller, Michael
Ziemer, Martin F., Cook
Zimmerman, Leo M., Cook
Zmugg, Andrew Joseph, Kane

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington.

CONCERNING THE RELATIONSHIP OF THE FAMILY PHYSICIAN TO ABSENTEEISM*

Dr. Andrew M. Babey, Chief Medical Examiner of the Sperry Gyroscope Company, Brooklyn, New York, recently sent a letter to the Journal of the American Medical Association. This letter expressed so many pertinent facts that it is quoted in full:

"There is at present a great deal of justified comment on the widespread problem of absenteeism in war industry. A number of clear studies have demonstrated that the question is not simple and demands an attack from many different sides, a very important one being the rejuvenation of the workers' sense of pride and responsibility.

"There is, however, one phase of this inquiry, relatively small yet important, which is generally overlooked and which can be handled, in large measure, by the family physician. Briefly stated, the real contribution he can make is to take a just, firm stand on requests for "certification."

"These requests fall roughly into three types, which I will describe in the order of their importance:

"Request for leave of absence because of illness: The generous family physician too often recommends long holidays for minor disorders. A recent example comes to mind. A young woman came to the hospital with a note from her doctor asking that she be granted four to six weeks leave of absence for laryngitis. Careful examination by a certified specialist revealed trivial congestion of the vocal cords. The patient was informed that such a leave could not be granted and she stormed out of the hospital in a fit of anger. Numerous similar instances could be cited in which holidays ranging from two to four weeks have been requested for slight, easily corrected disorders. It is not only unpleasant but, for various reasons, also quite imprudent to contradict the family physician; yet this often has to be done. In this emergency it is the function of every physician to see to it that healthy workers are kept on the job as regularly as is humanly possible.

"Request for change of shift, the second source of trouble: Most people do not care to work at night. They will think of every conceivable medical excuse and ask the busy family doctor to certify it. In one 'the night air is unhealthy'; in another 'it strains his eyes'; in another 'it aggravates constipation'; in still another 'it is causing bronchitis.' When such requests are denied by the industrial physician, discontent and a feeling of unfair treatment are created. As a result, workers are determined to 'get even' at the first opportunity and take unwarranted time off. A few sympathetic moments with a firm, unprejudiced family doctor could eliminate this source of friction.

"Request for change of job, the last common trouble maker: It is astounding to note how readily the family doctor certifies that certain fumes, gases, vapors or dusts (about which the patient is poorly informed) are 'dangerous' and 'poisonous' to the patient, who must immediately be removed to another safer job. It is hardly necessary to point out that every possible precaution is taken in modern plants to safeguard the worker against hazardous exposure. By simply inquiring by telephone what material is used, what the hazard really is and what precautions are being taken, the family doctor can avoid panic, confusion and unnecessary 'layoff' to 'clear the body' of these alleged poisons.

"These special problems are aired with no critical or malevolent intent. The family physician is extremely busy these days and can hardly be expected to be aware, always, of the difficulties of wartime industry. My plea is simply this: Let there be more cooperation between the local and the plant physician. With more consultations there will be fewer conflicts and more man-hours saved."

*Jour. A. M. A., June 5, 1943.

The following excerpts are from Volume 1, No. 2 of "What's New in Industrial Hygiene" published by the State Department of Public Health through its Division of Industrial Hygiene.

HEALTH HAZARDS IN MAGNESIUM FOUNDRIES

The November 1942 issue of the Journal of Industrial Hygiene and Toxicology reports a study of atmospheric contamination in magnesium casting operations. Aside from the usual foundry dust problem, magnesium foundry workers may be exposed to fluorides, magnesium oxide fumes, sulfur dioxide, chromic acid and carbon tetrachloride. The fluoride and sulfur dioxide exposure arises from the use of oxidation inhibitors; the chromic acid exposure from the chrome pickle used as an anti-corrosive treatment; the carbon tetrachloride exposure from the use of this solvent in spraying chills; and magnesium fumes from the molten metal. Of all these atmospheric contaminants, the most significant was found to be the fluoride fumes. These fumes were greater in the shakeout operation in which the average exposure greatly exceeded the suggested safe maximum limit of 20 mg./10 cu.m.

In controlling the exposures in magnesium casting, ventilation is necessary at shakeout operations, chrome pickle tanks and spraying chills with carbon tetrachloride. Respiratory protective devices and other well known engineering measures can satisfactorily control these exposures.

HAZARDS IN MANUFACTURE OF SYNTHETIC RUBBER

In the near future, synthetic rubber of the Buna type, i.e., copolymers of butadiene and acrylonitrile (Buna N) or of butadiene and styrene (Buna S) will be produced in larger quantities. The health hazards associated with this production are largely limited to the handling of, or vapor exposure to, acrylonitrile. Other materials used include soap solutions, organic emulsifiers, and electrolytes for demulsification.

In general, the steps in production are: (1) pressure reaction; (2) stripping of excess reactants; (3) coagulation of polymer; (4) dewatering and washing; (5) drying; and (6) compression of polymer.

From storage of raw materials to coagulation, closed equipment is used. However, the reactor must be cleaned manually after each batch is dumped. Before a man enters it, the tank should be purged with at least 10 air changes discharged outside any building. The man working in the tank should wear rubber footwear and gloves, as well as a life-line manipulated by another person outside the tank.

Where acrylonitrile is used, the coagulation tank, usually partially open, should be ventilated to provide 100 fp.m. inward velocity at the opening. This same amount of inward velocity should exist at all openings of the drier, where residual nitrile will be evaporated with water. The intermediate step, dewatering, should be well ventilated if open equipment is used. Centrifuges particularly may disperse vapor or mist into the air. Ventilation or tight enclosure should be provided. Beyond the drying operation, no known hazard exists.

Fire and explosion hazards are obvious in connection with the raw materials. A further possible acute exposure to acrylonitrile would follow breaks or leaks in equipment. Should severe leaks occur, gas masks must be available for use to reach valves, and spilled nitrile should be washed down the drain with copious water. Contact with the liquid must be avoided.

WARTIME INDUSTRIAL HEALTH PROBLEMS

Wartime production has evolved certain new or modified health problems. Some of the more important of these are as follows:

1. There is increased usage of cutting oils, compounds, and chemicals, many of which are capable of causing the industrial dermatoses.
2. Grinding operations have multiplied and these entail exposures to alumimum oxide, silicon carbide, and other grinding materials. While the dusts from grinding operations have not been regarded as harmful to health, disabilities occurring in workers so exposed are coming to be regarded as compensable.
3. Shot blast operations are being replaced by sand blasting, and new installations of

this nature are consistently using sand.

4. Sulfur and fluoride fluxes in magnesium foundries.
5. In an effort to speed up pickling operations, there is a tendency to increase the concentrations of acids in the pickling tanks, with consequently more contamination of the air with fine droplets of the acids.
6. Solvents are becoming more widely used and certain of the newer ones are purported to be non-toxic. Inasmuch as most of them are in the chlorinated hydrocarbon group of chemicals, they can be assumed to be more or less toxic.
7. Paint spraying operations are being modified, requiring radical readjustments in ventilation procedures.
8. There is a tendency toward longer working hours and consequently longer hours of exposure to harmful materials and shorter periods of recuperation.
9. It is becoming more and more necessary to employ women, older men, and young men who are not eligible for military service, many of whom require selective placement which is a function of the plant medical service.
10. It is necessary that the medical service in the war industries be integrated with the emergency medical service of civilian defense. Details necessary to this objective are not understood by the industrial physicians as yet.
11. Benzol is being used in increasing amounts as a substitute for toluol.
12. The return of lead paints required in government specification.
13. Priority difficulties in securing ventilation equipment.

WOUNDS

MECHANISM OF CROSS INFECTION OF WOUNDS IN HOSPITAL BY HAEMOLYTIC STREPTOCOCCI. REBA E. WILLITS and R. HARE, Canad. M. A. J. 45:479 (Dec.) 1941.*

According to Willits and Hare, surveys of the skin and bedding of patients with infected wounds indicate that hemolytic streptococci are present on many areas of a patient and his surroundings which are usually considered to be free of them. Therefore the chances of conveying infection by the hands of nurses, surgeons and dressers or instruments handled by them are far greater than is usually supposed. The air around patients, even ones with small wounds, may be polluted, and the chances of causing infection in other wounds by air-borne transport of infected particles is correspondingly increased.

That the margin of safety for ward infection of wounds in a ward is extremely narrow is adequately demonstrated by the increase in the amount of sepsis which occurs in wartime, when wards become crowded, ventilation is inadequate and the overworked personnel are too few.

Why the margin of safety is so narrow is clear from the fact that the patient and the whole of the contents of a bed containing a patient with an infected wound are suspect and may be potentially infective for other patients. The skin, the nasopharynx and the bedclothes harbor potentially pathogenic strains of infecting organisms. The infectivity does not cease at the periphery of the bed; it extends as a miasma in the air around and about it; the air-borne organisms probably reach the air when the bedclothes are being shaken as the bed is made. This occurs in the case of small trivial wounds as well as with large open wounds. Thus, infection may be transmitted not only by air currents but by the hands of the nurse or the surgeon who touches the bedclothes, bathes the patient and dresses his wound and, without washing the hands, attends an uninfected wound. Even the outer layers of the dressings which are handled without hesitation by nurses and surgeons may be contaminated.

The obvious inference is that under no circumstances should a patient with an infected wound remain in the same ward with patients with clean uninfected wounds. It is true that transfer of infection from patient to patient seldom occurs during peacetime. This relative immunity in peacetime is probably due to the fact that there is usually adequate cubic air space per bed, ventilation is efficient and more than one infected wound is seldom present in any ward. But with the almost inevitable hurry and overcrowding in wartime the barriers break down. The suggestions recommended for the handling

*War Medicine, May 1943.

of infected wounds in civil and military hospitals include the provision of a wing for all patients with any sign of infection, provision for the segregation with bacteriologic control of all patients and personnel with nasopharyngeal infections and the division of the nursing and surgical staff, so that no one attending a patient with an infected wound will come into contact with a patient with a clean wound.

Alternative measures (the treatment of the bedclothes with liquid petrolatum, oiling of the floors, ultraviolet irradiation of wards and similar measures) seem to the authors to be too clumsy and elaborate for general adoption, particularly under conditions of modern warfare. Moreover, there is no guarantee that under the stress of the conditions of war they might not break down. Therefore, segregation of all patients with infected wounds appear to them to be simpler and more likely to be of value. Its only drawback is that administratively it appears to be difficult, but this objection is not valid.

EXPERIMENTAL BURNS*

Elman and Brown, studying the effects of graded and controlled thermal stimuli on deeply anesthetized dogs, found that the exudation period, as measured by the hemoconcentration curves, was about 14 hours, followed by a 14 hour return to normal (in non-fatal burns). The authors realize that, in humans, this period may not infrequently be over twice as long (up to about 72 hours to return to normal).

Lischer and Elman, in experiments on dogs, demonstrated a material lowering of the degree of hemoconcentration by the use of local elastic pressure. However, the mortality rate was unaltered. The failure to affect the mortality rate may be due to the fact that the burns were severe enough to cause a hematocrit reading of 140% of normal even in the treated dogs, and the possibility of other lethal factors besides fluid loss.

*War Medicine, Vol. 3, No. 5, May 1943.

POSTWAR RELIEF

In the three years following the last war more people died from famine and preventable disease than were killed in the war itself, hence the importance attached to the present organization of postwar relief. The principal regional medical officer, British Ministry of Health, holds that the lives and health of millions in Europe as well as the physique and welfare of a generation to come depend on how well this preparatory work is done. He visualizes four principal problems — the provision of food, the supply of medical necessities, the control of such diseases as typhus, malaria, tuberculosis, and dysentery, and the reestablishment of the medical hospital, and public health services in each country. — *Ed. Jour. Royal Inst. Pub. Health & Hyg.*, (Mar.) 1943.

During four years 1937-1940 tuberculosis caused more deaths in the United States than were caused by all the battles of all the wars in which this country has been engaged, beginning with the Revolutionary War and continuing through the first World War. Robert Plunkett, M.D. N. Y. State Dept. of H., Bull. Feb. 1943.

The duty of the obstetrician is clear. Obviously he must discover, or if necessary have an internist discover, any communicable, active tuberculosis in his pregnant patient. If he knows such active infection to exist, he must isolate the baby from the mother immediately after delivery. Whether or not interruption of the pregnancy is indicated depends upon the individual case, as does the advisability of avoiding future pregnancies.

The Contact Infection Committee of the Academy of Pediatrics in November, 1942 added tuberculin testing and chest roentgen raying of pregnant women to its program for the eradication of tuberculosis in children. Does this mean that pediatricians are telling obstetricians what to do? No — just urging, or shall one say beseeching?

Now the idea that "a positive tuberculin test in an adult means nothing" has long since been abandoned. It means that the chest should be X-rayed and, if anything significant is found, the sputum, if obtainable, should be examined for tubercle bacilli. And in whom is such procedure more important than in the pregnant woman? And to whom is it more important than to her newly born baby?

Objection may be properly raised that a strongly positive intradermal tuberculin test (perhaps 5 to 10 per cent more accurate than the Patch test) could light up aquiescent process and result in harm to both mother and child. Where this is feared, the Patch test should be performed. Park J. White, M.D. Jour. Mo. State Med. Assn., Mar., 1943.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

COUNTY MEDICAL SOCIETY NEWS

Macon County Medical Society devoted its July 2nd meeting to celebrating the fiftieth anniversary in the practice of medicine of Doctor William Bell. He was presented the 50 year certificate and button of the State Society and was honored in short talks by several of his contemporaries. The presentation was made by Dr. Will C. Wood, a long-time friend. Dr. Bell gave a short acceptance speech in which he covered his fifty years of practice, emphasizing the particular medical advances which had taken place. About 40 members of the Society were present.

Regular monthly Scientific Meetings of the Macon County Medical Society will be resumed on September 21st, the third Tuesday evening of the month. A most interesting program is being planned.

Greene County Medical Society is planning a joint meeting with the dentists of the County at White Hall in September. This Society has a membership of 15 which includes every doctor in Greene County.

The Secretary of Menard County Medical Society reports that the members of this Society are all past the age to be in the Service and that Dr. Charles Hamil of Greenview is the only member of the Fifty Year Club. He reports that it will probably be two or three years before any other doctors become eligible for this distinction.

Aux Plaines Branch of the Chicago Medical Society has some interesting news to report from its men in Service, as follows:

"Major Sidney Raymond of the 25th Evacuation Hospital, the West Suburban Unit, is at present on duty on an island in the Southwest Pacific. He writes that the hospital is now permanently established and is functioning as planned. Roads have been completed over the island and are patrolled to keep from violations of the speed limits. They are now in the middle of winter which is the dry season and the temperature is moderate and the rainfall is much as it is here. With their complement of nurses the hospital has become the social center of the South Seas. The health of the outfit is reported as being excellent.

"Lieut. Com. Raymond F. Grissom writes from Washington where he is serving in the Dispensary at the Navy Yard that among his colleagues are Louis Draeger, Northwestern, from South Chicago, Clarence Minnema, Rush, from Winnetka and Maurice Monroe, Northwestern, from Hartford, Wisconsin."

The first woman doctor to be commissioned in the army from Chicago is Dr. Julie Olentine, 27, a physician and surgeon on the staff of St. Anthony's Hospital, Chicago. She was graduated by Rush Medical College in 1940, interned at St. Anthony's and has been on the staff since 1941. Dr. Olentine has been commissioned a lieutenant and has gone to Drew Field, Tampa, Florida.

On June 10th Doctor W. A. Young of Springfield was presented his 50 year button and plaque. He was entitled to this honor several years ago, but took suddenly ill on the eve of

the ceremony and the event was postponed. The presentation was made by Andy Hall, Chairman of the Fifty Year Club of the Illinois State Medical Society.

Ludvig Hektoen, noted pathologist, received homage on his 80th birthday, July 2nd, from a group of colleagues and friends who gathered at the Cook County Hospital in his honor. The group, including some 150 doctors and research workers, had come for the dedication ceremonies at the new Hektoen Institute, a research laboratory in the building which formerly housed the McCormick Institute. Very few of his friends had known it was his birthday until late in the ceremony. Dr. Morris Fishbein presided with Dr. Karl Meyer, Superintendent of county institutions and Clayton F. Smith, President of the Board of Commissioners of Cook County, taking part in the ceremonies. Dr. Hektoen began his service with the County Hospital as an intern 56 years ago when the hospital had one microscope and 12 interns.

At the annual meeting of The Chicago Gynecological Society, held May 21, the following officers were elected:

President, George H. Gardner; President-Elect, William J. Dieckmann: Vice-President, Christian D. Hauch; Treasurer, Henry Buxbaum; Secretary, Eugene A. Edwards; Pathologist, Lester E. Frankenthal Jr.; Editor, Philip H. Smith.

At the annual meeting of the Illinois Psychiatric Society held on May 22, 1943 the following officers were elected for the year 1943-44:

Dr. Clarence A. Neymann, President; Dr. Hugh T. Carmichael, Vice-President; Dr. Frances Hannett, Secretary-Treasurer; Dr. Francis J. Gerty, Councilor; Dr. Vladimir Urse, Councilor.

The Annual Meeting with election of the officers of the Chicago Branch of the American Medical Women's Association was held July 14, 1943, and the following officers named:

President, Augusta Webster, 104 S. Michigan Ave.; President-Elect, Albertine L. Rea, 822 Cuyler Ave., Chicago; First Vice-President, Marguerite Oliver, 30 N. Michigan Ave.; Second Vice-President, Ione Beem, 30 N. Michigan Ave.; Secretary, Evalina W. Ehrmann, 122 S. Michigan Ave.; Treasurer, Clementine Frankowski, 1907 New York Ave., Whiting, Ind.; Bulletin: Sadie Bay Adair, 3866 Lake Park Ave., Lucille Snow, 1320 Ashland Ave., Wilmette, Ill., V. A. Latham, 1644 W. Morse Ave.

Southern Illinois doctors were guests of the Southern Illinois Penitentiary through the courtesy of Warden and Mrs. Becker, Menard, on June 17th. The program was given by the Staff of the Prison Hospital.

The doctors were taken on a tour of the Psychiatric Division Infirmary where Dr. Kuhlman, Chief of the Medical Department, demonstrated a Metrazol Convulsion and briefly discussed the merits and demerits of this type of therapy. Dr. Omer Hoffman of the Randolph County Unit gave an interesting discussion on Filiarisis in which he demonstrated a case of elephantiasis of the scrotum in a negro. The inmate was a native of Africa and had contracted the condition there.

The doctors were taken to the Prison Hospital. Since rapid preparations were being made here for the Army Induction Unit soon to be there, it was not possible to visit the entire hospital division. The rest of the program was given in the Administration Building where Dr. John Beare of Randolph Unit of Medical Men, presented a case of multiple fracture of the Femur, complicated by fractures of both ischium, pubic and sacral bones together with fracture and displacement of transverse process of the 5th lumbar vertebra. Complete X-Ray pictures showing the healing process and the original fracture (Dec. 9, 1942) were shown. At this time when the doctors saw the inmate he was doing his usual work, without a crutch, and showed only a slight defect in his gait.

The medical program ended with a paper given by Dr. Kuhlman on the central nervous system lues, dealing primarily with the incidence, prophylaxis and active Rx of the condition. Talks followed by Warden Becker, G. C. Otrich of Belleville, James S. Templeton Past President of the Illinois State Medical Society and Dr. L. May, Managing Officer of the Anna State Hospital.

Following a splendid dinner Warden Wallace of the Illinois Security Hospital spoke and the program was presented by Dr. Ralph C. Hamill of Chicago, Assistant Alienist and Consulting Psychiatrist of the Veterans Bureau at Hines; the Consulting Neurologist who is also assistant director of the Behavior Clinic in Chicago, and Dr. Ralph May who demonstrated Electric Shock Treatment.

MARRIAGES

SAMUEL S. ALLEN, Robinson, Ill., to Miss Bernice Quick of Oblong, June 3.

DEATHS

STODDARD L. ANDERSON, De Kalb; Rush Medical College, 1896. Practiced medicine in De Kalb for 43 years. Died July 10, 1943 at the age of 68 years.

STEPHEN VICTOR BALDERSTON, Evanston; University of Pennsylvania School of Medicine, 1895. Member of medical staff of Evanston Hospital. Was commissioner of health from 1907 to 1914. In World War 1 he entered the army as a captain and was discharged in 1919 as a lieutenant colonel. Died of a heart attack July 11, 1943 at the age of 75.

CHARLES EDWIN BEECHER, Knoxville; Northwestern University Medical School, 1905. Had practiced medicine in Knox County for many years. Died July 14, 1943 following an infection in his left hip, at the age of 63.

ROLAND A. FELT, Virginia; Barnes Medical College, St. Louis, Missouri, 1899. Had practiced medicine in Virginia for 12 years. Died July, 1943 at the age of 67.

LOUIS MORRIS GREEN, Maywood; University of Illinois College of Medicine, 1912. In 1918 and 1919, he served as medical officer in France and Belgium. After the war was examining physician for the Baltimore and Ohio Railroad. Died July 18, 1943 at the age of 63.

EDWARD W. GROSSER, Chicago; Chicago Homeopathic Medical College, 1901 and Rush Medical College in 1902. Died July 24, 1943 at the age of 70.

THOMAS A. HORINE, Brighton, Washington University School of Medicine, 1879. Retired six years ago after nearly fifty years of practice in Macoupin County. Died July 16, 1943 at the age of 82.

JOHN H. KRUEGER, Des Plaines; Loyola University Medical School, 1912. Had practiced medicine in Des Plaines for 20 years. Died suddenly July 3, 1943 at the age of 63.

FRANK A. LAGORIO, Chicago; Northwestern University Medical School, 1911. Chief physician for the Illinois Athletic Commission, member of the Chicago library board and head of Chicago Pasteur Institute. Died of a heart attack July 18, 1943 at the age of 56.

HARLAND W. LONG, Mattoon, retired U. S. Army Major; Missouri Medical College, 1898, New York University College of Medicine, 1904. Served in the Spanish-American and World War. Was awarded the French Merit Award for his work with influenza while on foreign service. Died July 18, 1943 at the age of 73.

RAYMOND HENDERSON MCPHERRON, Chicago; Northwestern University Medical School, 1921. Postgraduate work at Cook County Hospital. Was active staff member of Woodlawn Hospital for past 16 years. Past president of the Kiwanis Club. Was secretary and later president of the Jackson Park Branch of the Chicago Medical Society and later alternate and councilor to the Chicago Medical Society. Died suddenly of a heart attack May 23, 1943 at the age of 49.

JESSIE MARSH, Chicago; Chicago College of Medicine and Surgery, 1914. Had practiced medicine in Chicago for 25 years. Died in St. Bernard's Hospital June 30, 1943 at the age of 59.

JAMES FITZWILLIAM MYERS, Virginia; Tulane University of Louisiana School of Medicine, 1903. Had been in failing health for the past two years but died suddenly July 2, 1943 at the age of 72.

WILLIAM A. PIKE, Ottawa; Rush Medical College, 1896. Had served in the Spanish-American war with Company C, Third Illinois Infantry. Died June 25, 1943 at the age of 69.

ROY C. POPE, Niantic; Michigan College of Medicine and Surgery, Detroit, 1901. Had practiced in Niantic for over 40 years. Died suddenly when on a vacation in Boulder Dam, Wisconsin, July 8, 1943 at the age of 67.

HARVEY FRANCIS RAWLINS, Champaign; University of Louisville School of Medicine, 1910. Was First Lt. in World War 1. Died following an illness of two weeks, July 14, 1943 at the age of 59.

HENRY ALVIN SHAFFER, Charleston; Hahnemann Medical School, Chicago, 1903. Had practiced medicine in Charleston for 39 years. Died of a heart attack July 12, 1943 at the age of 71.

WILLIAM ALEXANDER SIM, Quincy, Ill.; Rush Medical College, Chicago, 1902; member of the American Psychiatric Association; served on the staffs of the Veterans Administration Facility in Sheridan, Wyo., and St. Cloud, Minn.; aged 65; died, April 21, of chronic leukemia.

ALBERT LESTER STEBBINGS, Park Ridge; Northwestern University Medical School, 1896. Served three years in the medical corps in Honolulu, Hawaii during World War 1. Died July 3, 1943 at the age of 72.

HARVEY AINSWORTH TYLER, Chicago; Rush Medical College, 1889. From 1900 to 1925 was professor of gynecology and venereal diseases in Chicago Policlinc and Hospital. Medical director of the House of Good Shepherd. Died July 3, 1943 at the age of 53 years.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS
AUGUST

This month is but an encore to the last,
The blazing sun sears deeper day by day,
Attempts to sleep at night are long since past,
With dust the roadside weeds are covered gray.
We take vacations that we long have planned
And rush up north in search of pep and zest;
We spend two hectic weeks in getting tanned
And then come back to work to get some rest.
Hay fever victims sadly cough and weep
And sneeze their protests through a swollen nose;
These lazy dog-days put us half asleep,
We ooze and bake and sizzle, nod and doze.
At winter's bitter cold we rave and curse
And find the heat of summer vastly worse.

NEVER TOO HOT

Each day is growing hotter,
I need a towel and blotter
To mop up sweat where chin and collar meet;
My nose is all ablister
Where blazing sunshine kissed her,
My face is one gigantic blood red beet.

My whole skin surface oozes,
Each muscle work refuses,
My feet protest at walking hot concrete:
Each room is like a furnace,
Each thing we touch will burn us,
To live in hades now would be a treat.

My throat is parched and drying,
I sizzle like things frying,
And all I crave is something cold to drink;
The poor old head is aching,
The spirit now is breaking,
My mind is utter blank; I cannot think.

My heart's but faintly beating,
Life's span is fast retreating,
This mortal coil's about to shuffle off;
I long ago quit trying,
Relief may come from dying —
I think I'll go and play a game of golf.

HUMAN FORMS

The doctor making calls at night
And coming home at dawn,
Beholds folks in a sweltering plight
Sprawled out on porch or lawn.

The most possess but scant attire,
And some much less than that,
A frowsy sight as they perspire,
Misshapen thin and fat.

Folks rave of human forms divine,
To them a wondrous sight.
If such exist then I opine
They don't sleep out at night.

One hopes the heat will not prolong
These sights at which we gaze
It takes a stomach good and strong
To breakfast on such days.

An Autumnal Wheeze.

I cannot tell the woes of me,
For dust rides on the breeze.
There's pollen in the nose of me.
I cough; I blow; I sneeze.

I know each day will bring to me
Its part of grief and pain.
The fiends of night will sing to me
And sear my tortured brain.

The skein of life's unraveling —
Accept Dame Fate or leave her —
So Northward I am traveling
Where no one has hay fever.

For full two months I'll stay away
And north of rag weeds roam;
A pariah who will hope and pray
For killing frosts at home.

Quarrelsome Quatrain.

When people sit on stool to eat,
They'd look much less inferior
If they would only hide their feet,
And likewise their posterior.

Professor Paresis says, "You may think you know a man's character when you have gone camping with him frequently or played golf with him regularly or lived next door to him for a long time. But I advise that you be not too sure of your judgment until you have had occasion to observe his behavior when he is given a position of authority."

Look to your health; and if you have it, praise God and value it next to a good conscience; for health is the second blessing that we mortals are capable of; a blessing that money cannot buy. Izaak Walton.